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# LABOR REVIEW

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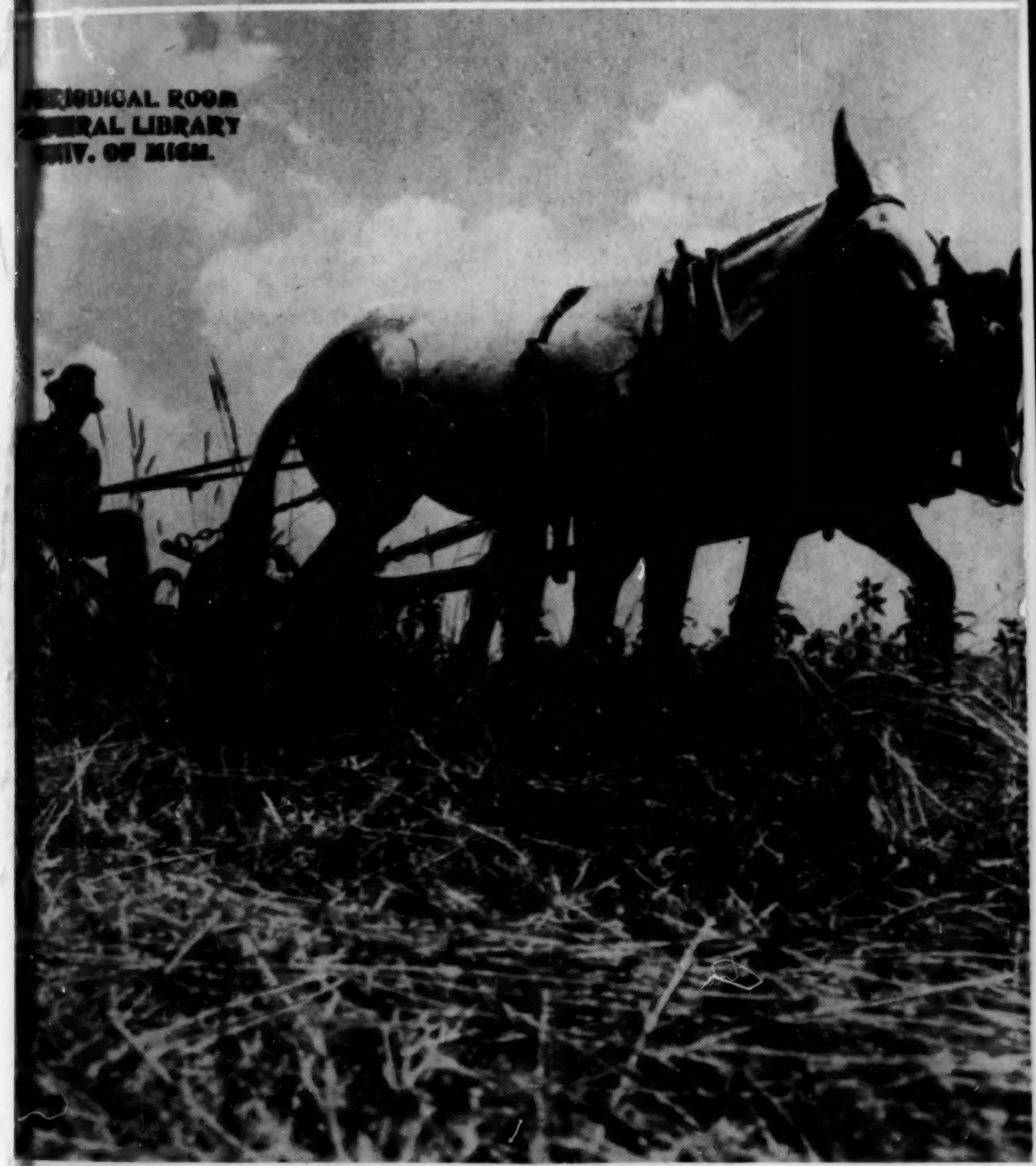

Working on the Washington Self-Help Farm

Photo by courtesy of Washington Self-Help Exchan

*In this issue . . .* National Nutrition Policy • Overtime Pay in Relation to Cost • Labor Migration to California, 1935–40 • Earnings in the Lumber Industry

JULY 1941
Vol. 53 • No. 1

UNITED STATES DEPARTMENT OF LABOR

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*Published by the Bureau of Labor Statistics, under authority of Public Resolution No. 57, approved May 11, 1922 (42 Stat. 541), as amended by section 307, Public Act 212, 72d Congress, approved June 30, 1932. For sale by the Superintendent of Documents, Washington, D. C. Price, 30 cents a copy. Subscription price per year in the United States, Canada, and Mexico, $3.50; other countries, $4.75. This publication approved by the Director, Bureau of the Budget.*

MONTHLY LABOR REVIEW

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

HUGH S. HANNA, EDITOR

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# *This Issue in Brief*

*A National Nutrition Policy.*

Adequate nutrition is indispensable in securing satisfactory living. Although the American workers' diet was superior to that in most other countries even before the outbreak of war, there is need for further improvement. In establishing a national nutrition policy attention should be directed to extending education in the selection and combination of foods; insuring a supply of essential food products at reasonable prices; and supplying free food to certain groups, as, for example, to school children. Developing a national nutrition policy involves a delicate balance of the interests of producers, distributors, and consumers. Page 1.

*Overtime Pay in Relation to Costs and Profits.*

The requirement that overtime hours be paid for at overtime rates has raised questions regarding the effects of overtime on costs, prices, profits, and indemnification of contractors for overtime wages paid. Studies of 26 defense industries, made by the Bureau of Labor Statistics, indicate that profits tend to rise with increased production under longer hours even when overtime rates are paid. Therefore, such payments need not cause higher prices and do not call for indemnification of defense contractors who are asked to speed production by adopting longer hours and paying overtime rates. The payment of overtime rates is more than counterbalanced by the increased utilization of plant facilities and the absorption of fixed overhead expenses in a larger volume of production. Page 9.

*Labor Migration to California, 1935–40.*

More than half a million persons in search of manual employment entered California during the 5½ years from the middle of 1935 to the end of 1940. A large part had been formerly agricultural workers and, for the most part, arrived in California with little money and unable to buy or rent decent housing. As a result new rural slums came into being. Many became nomads and followed the far western harvests. To measure this movement of distressed manual workers, a continuous count has been kept at the borders of the State. These figures are analyzed in an article beginning on page 18.

*Washington Self-Help Exchange.*

Opportunity to supplement income by part-time work is provided by the Washington (D. C.) Self-Help Exchange. This work is paid for by scrip. The organization was started in 1937 to provide means whereby unemployed persons could make themselves presentable before looking for work. Since that time its services have steadily expanded in number and variety. Meals, lodgings, vegetables and bread, household furnishings of all kinds, valet, barber, and beauty service, and dental and optical care are now offered by the Exchange. Its activities are described in an article on page 35.

*Spending and Savings of Wage Earners.*

Data provided by the Study of Money Disbursements of Wage Earners and Clerical Workers have been used to estimate the incomes and spending of the families of all employed wage earners and clerical workers in

large cities in 1934–36, and of this same group of families in 1940. The total income of these 5½ million families in a 12-month period in the years 1934–36 was about 8.4 billion dollars and about 10 billion dollars in 1940, an increase of more than 1½ billion. In 1934–36 these 5½ million families were estimated to have spent an aggregate of $8,339,400,000 for their current living expenses, the balance of their incomes going to savings of different kinds, life-insurance premiums, payment of back debts, mortgages on owned homes, etc. In 1940 their total current expenditure was approximately $9,736,000,000. Page 50.

*Productivity in the Milling Industry.*

Output per man-hour in the flour milling industry increased by more than two-thirds between 1919 and 1931. From that year through 1937 there was a decline, but by 1939 and 1940 man-hour output was almost as great as in 1931 and about 9 percent higher than in 1929. The long-term increase in productivity is attributable mainly to the growing importance of large mills, which are able to utilize their labor force more efficiently than small plants. Employment in the industry in recent years has been about the same as 1929, since the curtailment of production and higher man-hour output has been counterbalanced by a shortened workweek. Page 83.

*Hand and Machine Production of Cigars.*

Of the cigars manufactured in 1940 approximately 77 percent were made by machine methods; 19 percent by hand; and 4 percent by a combination of hand and machine. Five-cent long-filler machine-made cigars constituted one-third of the 1940 output and short-filler machine-made cigars retailing at less than 5 cents another one-third. The only other single type of cigar accounting for as much as 5 percent of the total production is the long-filler hand-made cigar retailing at more than 5 cents each. Page 95.

*Working Conditions in Fire Departments.*

Nearly 67,000 persons were employed on a full-time basis in fire departments of 363 cities with populations of 25,000 or over on July 1, 1938. They gave fire protection to more than 48 million people at an annual salary cost of approximately $150,000,000. On the average, 14 fire-department employees served each 10,000 in the population. The average annual salary of firemen was $2,248 and the per capita salary cost $3.12. Sixty-nine percent of the firemen covered outside of New York City worked under a two-platoon system requiring an average of 84 hours of duty a week. Page 172.

*Earnings in the Lumber and Timber Products Industry.*

Earnings of workers in the lumber and timber products industry averaged 50.1 cents an hour in the fall and winter of 1939–40. Earnings in individual branches of the industry varied from 36.6 cents in cooperage stock production to 94.8 cents in the manufacture of shingles. In logging and sawmilling, which together employed about half of the workers surveyed, average hourly earnings were 59.7 and 47.5 cents, respectively. Page 187.

# MONTHLY LABOR REVIEW

FOR JULY 1941


## A NATIONAL NUTRITION POLICY AND THE WAGE EARNER

By FRANCES PERKINS, *Secretary of Labor*[1]

ONE of the hopes of this generation is to be able to make available to all our people the goods they need for satisfactory living. The most indispensable of these goods are the foods required for adequate nutrition. An answer to the problem of obtaining the foods necessary for health is vital to all of us.

It is obvious that city families and rural families meet with this problem in different forms. There are some farm families who do not have adequate diets, but farm families are, on the average, able to provide as much as two-thirds of their food directly from their own gardens, orchards, or fields, and from their own milk cows, poultry, and other livestock. They have had, in addition, through the Cooperative Extension Service of the Department of Agriculture, more advice on questions of nutrition than is available to the average city family. I propose, therefore, to discuss at this time nutrition policy primarily as it affects city workers' families.

I hardly need to say to this group that American workers have always been among the best fed in the world. We have rightly prided ourselves on the bounty of American dinner tables, and the generosity of our hospitality. When we criticize the food we have to eat, we realize at the same time that we are peculiarly fortunate in the ratio of our land resources to our population and in our knowledge of the techniques of agricultural production. As compared with most other peoples, we have an excellent diet in the United States.

### *Average Diets in the United States and Other Countries*

Our convictions on this subject are not based entirely on patriotic prejudices. Five years ago the International Labor Office made a pioneer study of the diets of urban workers and their families in different countries of the world. This was followed by reports of the

[1] An address before the National Nutrition Conference, Washington, D. C., May 27, 1941.

League of Nations and the International Institute of Agriculture, which provided further data on the subject. These reports show that the average diet in the United States was among the best in the world, even before the catastrophies which have so greatly reduced food consumption in Europe and Asia in the last few years. According to the data available in the late 1930's, only in the Scandinavian countries, Great Britian, and the British Dominions were average diets as high as in the United States.

We cannot, however, be satisfied to know that average food consumption in this country is among the best in the world. In the first place, the average itself is in some respects below the standard which scientific research has set for optimum growth and health. In the second place, there are many families in the country below the average, and, in the third place, a disproportionately large number of children are found in the families whose diets are below the average.

### *Relation Between Food Consumption and Health*

One of the first tasks assigned the newly organized Department of Labor agency in 1888 was a study of the incomes of wage earners, and the goods available to them. Since that time, the Bureau of Labor Statistics has made periodic studies of this subject, and the Children's Bureau has carried on intensive studies of the relation between food consumption and health. The latest survey of the Bureau of Labor Statistics was carried out among employed wage earners and clerical workers who had not been dependent on relief of any kind in 1935 and 1936. The nutritive content of the diets of these families has been calculated by the Bureau of Home Economics and shows that, relatively high as they are, they nevertheless fall short of the standards which are now accepted as providing a thoroughly satisfactory margin for growth and health.

In summarizing its findings, the Bureau states that there is little likelihood of deficiency in calories or protein in the diets of employed workers' families. Most of the diets furnished an adequate amount of phosphorus. All but 5 percent furnished a fair allowance of iron, and about half a generous allowance. But the consumption of calcium and of vitamins A, B, and C was frequently inadequate. This means that some families had too little food of all kinds, but in general that the diets were most likely to be short in the leafy vegetables, in the coarser grain products, in such foods as whole grain breads, raw cabbage, tomatoes, and citrus fruits. When the figures on the different types of foods were put together, it was found that about half, even of this group of employed urban workers, had diets which were deficient in at least one important nutrient.

There is no doubt that one of the reasons why many American workers and their families do not receive a completely nutritious diet

according to present-day standards is that much of our knowledge on the subject of human food needs is so new. The progress in laboratory research in this field of knowledge has been epoch-making in the last 30 years. The progress in the laboratory has, however, been paralleled by a remarkable educational accomplishment. Average men and women in the United States today have a very fair grasp of their need for minerals and vitamins. While men still make poor selections of the food they buy at lunch counters, and women still make poor selections when they are spending the family food money, it is undoubtedly true that general knowledge of human requirements for food has been tremendously improved in the last three decades.

### *Changes in Dietary Habits of Wage Earners*

Studies of the Bureau of Labor Statistics made at the end of the last war and in the mid-1930's provide a somewhat more exact basis for judging changes in the dietary habits of the wage-earner group. At the end of the last war Americans were just becoming aware of their need for minerals and vitamins in food and their importance in good nutrition. This new information, together with the great increase in the production of citrus fruits and their very marked decline in price, and the improvement in long-distance transportation which has made fruits and vegetables available in our cities all the year round, have combined to produce important changes in the food consumption of urban workers. Tomato juice, which is almost a new food and a very valuable one, has come on the market. Per capita consumption of milk has also increased, as special educational efforts have been combined with methods by which low-cost milk has been made available to city families with small resources.

In developing an educational program for improving nutrition, it is important to keep in mind the importance of custom in our food habits. The Labor Department's recent studies of food consumption show the remarkable persistence of the food preferences of earlier generations in the localities studied. The tables of New Orleans still remind one of the fish, the chicken, the salads, and the greens of the French; the Bostonians still eat more beans and drink more tea than families in most other cities. In Cleveland and Milwaukee they eat more rye bread, cheese, and apples and drink more coffee. We Americans have our private ideas about good food. It is lucky for the farmers that we do like a little variety, and all these preferences must be taken into account in any program which attempts to bring diets to a point where they will adequately provide for growth and health. A national nutrition policy should plan to change food-consumption habits only insofar as it is absolutely necessary to do so to provide all the nutrients necessary for health, efficiency, and the full enjoyment of life.

Even on this basis, there is, of course, still much to do in making people aware of what constitutes good nutrition in such a way that they can apply it to their living. Educators meet a great challenge when they face the figures, recently made available, which show that there are a great many city families who have enough food money, but who spend it without obtaining the balanced diet necessary for the health and growth of children and the maintenance of health in adults.

### *Relation Between Economic Status and Health*

In my opinion, however, the fundamental problem is economic. More than one-quarter of the families surveyed by the Bureau of Labor Statistics in 1934–36 did not spend enough to secure the Bureau of Home Economics' adequate diet at minimum cost. The literature abounds with examples of the connection between economic status and health. A Children's Bureau study of 6- and 7-year-old school girls indicated an inverse relationship between poor economic status and (1) gain in weight, (2) need for medical and dental care, and (3) number of school absences.

The Milbank Memorial Fund has recently been making an extensive medical evaluation of the nutritional status of high-school students in New York City. It has found striking differences between the vitamin-C status of the children in high- and low-income groups.

Studies of gain in weight and its association with economic status by the Children's Bureau and a study of Pittsburgh school children provide further evidence of the relationship between poor health and poor diet. Studies by the Public Health Service of the incidence of pellagra show a progressively higher incidence of the disease with decrease in family income. A relationship between poor diets, absences from school, and failure to complete the grade's work in a year also has been found. I might go on for a long time with other examples of this sort.

Indirect evidence of the results of improper diet is provided on a large scale by the beneficial effect of school lunches. The WPA reports that nourishing hot lunches fed to needy school children have improved not only general health but the quality of their school work.

The proportion of our children who are found in families without adequate nutrition should be a matter of grave concern to all of us. The Bureau of Labor Statistics' study of employed wage earners and clerical workers, to which I have already referred, shows that more than 40 percent of the children in this relatively favored group live in families whose incomes are below the level necessary to provide adequate food, as well as suitable housing, clothing, medical care, personal care, union dues, carfare, newspapers, and the other sorts of recreation for which city families must pay in dollars and cents.

It is a great mistake to think that a family can budget for a nutritionally adequate diet and fall far below the maintenance level in all the other goods which make up urban living. Large city families of average size with incomes below $1,350 or $1,400 presumably distribute their funds to all categories of family needs without obtaining the best standards in any one.

### *Effect of Increase in Real Wages*

I know that many of you are thinking that the figures I have been quoting are so far out of date that they have ceased to be useful, because increases in wages and salaries have been so great since the mid-1930's that all these dietary deficiencies will have been wiped out. This reaction will come, however, from those who did not observe that the figures on dietary adequacy which I have given you were based on data from families which had not been on relief, whose incomes were $500 or more, and in which at least one member had had employment in at least three-fifths of the weeks of the year. This group makes up what we think of as typical American city families, the middle-income group, including neither the very poor nor the rich. By 1940 average money incomes among these families are estimated to have increased by about 20 percent, while living costs have risen about 3 percent since 1934–36. Such an increase in real wages and salaries has certainly permitted an improvement in the diets enjoyed by these middle-income families.

For the entire group of workers, however, it is still unfortunately necessary to say that the general picture continues to present a serious situation. There is still a large proportion of families in the wage-earner and clerical groups whose diets are deficient in one or more of the essential nutrients.

### *Need of National Policy on Nutrition*

In the face of this situation, it is clear that labor has a large stake in the development of a national policy on nutrition. The figures that I have already given show that an increase in the purchasing power of families at the lower-economic levels would do much to improve the nutritional status of the wage-earner and clerical groups. The urgency and importance of such an increase should be clear to all thoughtful people. The Fair Labor Standards Act is already putting a floor under wage rates so far as interstate commerce is concerned. Employment on Government enterprise in connection with the defense program has already greatly increased the total wage income in the country. Nevertheless, a change in the amount and distribution of the national income sufficient to provide for entirely adequate diets for all urban workers will take a long time and presents many complicated problems.

Even while we are in the midst of the national-defense program, we should be considering economic measures which will bring about improvements in the American diet. These plans should be of two types: Those for cutting the cost of bringing food from the farm to the urban consumer and plans for certain consumer subsidies.

Processing and distribution costs bulk large in the Nation's food bill. Studies of the Bureau of Agricultural Economics show that in 1940 American consumers spent about $14,800,000,000 for foods grown in this country. Of this amount the farmer got about $6,200,000,000. The remaining amount, or $7,600,000,000 went to pay the various charges for transportation, processing, and marketing. The latter costs cover services which are as real and as important as those rendered by the farmer. The charges for these services, however, may be unduly large either through inefficiency or monopoly control. The Government should continue to take whatever measures are necessary to safeguard economy of distribution. Grading and labeling regulalations which encourage efficient distribution and efficient buying by the housewife should be encouraged. There are other regulations, however, taxes and license fees which unduly raise food costs, and they should be abolished in the interest of a sound nutrition policy.

Farmers' curb markets, city pushcart markets, and low-price milk depots are needed both to serve the public and to give the farmer an adequate outlet for his products. Efforts should be directed toward developing varieties of direct marketing which will eliminate unnecessary cost without bringing about other unfavorable results.

### *Food-Consumption Subsidies*

Food-consumption subsidies became part of public policy in the United States in the years of the last depression when they seemed the best answer to the dilemma of farm surpluses of food products, on the one hand, and the many urban families without proper food on the other. The loss of foreign markets and the decline of purchasing power for a time among most city families resulted in the wastage of foods on the farms which were unmarketable only because the families who wanted them could not buy them. The surplus marketing program was at first developed as a temporary measure, but there is much to be said for incorporating some of its best features into a national policy on nutrition. The school-lunch program seems a particularly valuable addition to American institutions. In most parts of the United States, school books have been provided without charge for a number of years. The provision of free school lunches seems an even more important part of the public responsibility.

More than 4,000,000 children in our schools have received free lunches during the current fiscal year. There are about 27,000,000

school children in the entire country. If all the children who now have inadequate diets were to be reached by the school-lunch program, it is unlikely that there would be many schools without some children having a free lunch. It thus seems clear that the extension of this program to all school children would have, in addition to its other advantages, a very sound psychological basis. It would also provide for children whose parents had not taught them sound food habits, and give practical lessons in what constitutes a nutritionally adequate noon meal.

Provision for additional adult education in nutrition for city mothers, and very likely for city fathers, too, should be part of a national nutrition policy. We need to make available to the adults of today the newer knowledge of nutrition which was not taught when they were in school. We should make it as easy as possible to translate human needs for calories, proteins, minerals, and vitamins into terms of breakfast, lunch, and dinner menus. We must make it easy for average men and women to protect themselves from the unscrupulous who wish to exploit the current interest in what constitutes an adequate diet. Government agencies are, of course, working to protect consumers in this matter.

Rather recently, one of our Government departments had reports of a concern selling synthetic vitamins advertised to make permanent waves stay in longer and to keep polish from chipping off from fingernails. The regulatory agencies dealt with this case of obvious fraud, and they will do their best in other cases of this sort, but they must be assisted by an informed public. City families need more education facilities than are now available in this field.

Many suggestions have been made for the extension of the food-stamp plan to all families which have been certified for public assistance, and in addition to independent families with incomes under $1,000. Such an increase in the program would require careful planning and a considerable increase in agricultural production, but it might yield such substantial dividends in morale as well as in health that it should be incorporated as part of a national policy on nutrition.

## *Other Elements of Nutrition Planning*

Planning for improved nutrition should also include improvement of proper nutrition standard meals in factory lunchrooms and canteens. Arrangements should be made to provide nutritionally adequate and palatable meals at cost to men and women at the place of work, with due regard for the preferences and the food-consumption habits of the group to be served. Too often factory workers find it difficult to secure digestible and attractive meals near their work without paying excessive prices. This proper food will greatly increase their working efficiency as well as personal appearance.

**Developing a national nutrition policy for the United States is not a simple task. It involves a delicate balance of the interests of producers, distributors, and consumers; of farmers and urban workers. Labor, whether agricultural labor, factory labor, labor in mines, on trains, or on waterfronts has a great stake in a nutrition program, because good nutrition is fundamental to good health, and the cooperation of healthy workers is fundamental to the development of any important national policy. This problem is one that involves individual action and social action, and I believe that we may look forward with confidence to finding its solution on a democratic basis.**

# OVERTIME PAY IN RELATION TO COSTS AND PROFITS[1]

WAGE and hour legislation provides for a maximum 40-hour week at straight-time rates of pay, but permits overtime work at one and a half times the straight-time rates. The increased demand for workers, especially in the defense industries, has made necessary a considerable increase in the amount of overtime. Much of the increased producton is in the industries in which extensive contracts have been let for defense production. The restrictions on hours have raised questions regarding the effects of overtime on costs, prices, profits, and the indemnification of contractors for overtime wages paid.

Studies of 260 corporations in 26 defense industries, whose combined 1939 sales amounted to $11,234,000,000 have been made by the Bureau of Labor Statistics for the purpose of ascertaining the effects of overtime wage payments on profits and costs. It was found that an increase of working hours by 20 percent above those actually worked in 1939, with full overtime wages, would increase the combined earnings of the 260 corporations by $75,284,000, all other factors remaining constant except for an allowance of a 20-percent decrease in the rate of output during the added hours. Therefore, the prices of their products need not be increased to maintain earnings as greater demands for production require an increase in hours of labor above 40 and up to at least 48 per week. In addition, it should not be necessary to indemnify defense contractors merely because they are asked to speed production by the adoption of longer hours and the payment of overtime rates to workers. These conclusions are based on the fact that the payment of overtime rates under the Fair Labor Standards Act is more than counterbalanced by the increased utilization of plant facilities and the absorption of fixed overhead expenses in a larger volume of production.

In 9 of the 26 industries, the effects of overtime rates of wages as calculated indicated a decline in return to business investment. As will be pointed out later, however, the methods used in the calculations were exceptionally conservative and the changes in the return or in the gross manufacturing profit were not large enough to exceed the range of the probable error of the data employed.

## *Data for Specified Industries*

The results of the study of the effects on earnings of the 26 industries are summarized in table 1.

[1] This article is a summary and discussion of a report entitled "The effect on corporate earnings of speeding defense production through overtime operations," by Dal Hitchcock of the Bureau of Labor Statistics. Copies of this report are available upon request.

TABLE 1.—*Summary of Industries Analyzed Indicating Scope of Study and Effect of Overtime Wage Payments on Gross Margin on Sales*

[Values are in thousands]

| Manufacturing industry | Census value of industry's products, 1939 | Corporations included in study | | | Gross margins on sales of corporations included | | |
|---|---|---|---|---|---|---|---|
| | | Number | 1939 combined sales | Sales as percent of census value of product | Reported 1939 | Estimated with 20-percent increase in hours | Estimated change |
| Total | $20,192,655 | 260 | $11,234,499 | 56 | $2,911,302 | $2,986,586 | +$75,284 |
| Agricultural machinery and tractors | 421,847 | 7 | 447,025 | (1) | 121,375 | 124,347 | +2,972 |
| Aircraft | 279,497 | 7 | 181,534 | 65 | 51,544 | 52,752 | +1,208 |
| Automobile parts and accessories | 4,039,931 | 17 | 460,751 | 85 | 95,845 | 93,966 | −1,879 |
| Motor vehicles | | 8 | 2,974,366 | | 620,891 | 629,006 | +8,115 |
| Chemicals (industrial) | 838,217 | 13 | 878,406 | (1) | 308,266 | 329,400 | +21,134 |
| Coke-oven products | 342,197 | 4 | 114,565 | 33 | 26,039 | 25,617 | −422 |
| Copper producing and manufacturing | 633,995 | 6 | 409,247 | 65 | 119,469 | 122,476 | +3,007 |
| Cotton textiles | 1,168,171 | 33 | 415,713 | 36 | 46,965 | 35,185 | −11,780 |
| Electric machinery and apparatus | 1,727,390 | 19 | 806,336 | 47 | 257,850 | 258,082 | +232 |
| Engines, turbines, and waterwheels | 135,110 | 7 | 44,986 | 33 | 14,030 | 14,473 | +443 |
| Firearms and ammunition | 46,803 | 4 | 30,608 | 65 | 9,924 | 9,976 | +52 |
| Gray-iron and malleable-iron castings | 263,171 | 4 | 48,735 | 19 | 10,081 | 9,252 | −829 |
| Knit goods | 714,428 | 17 | 126,647 | 18 | 25,948 | 24,040 | −1,908 |
| Lead and zinc producing and manufacturing | 249,269 | 6 | 190,986 | 77 | 39,803 | 41,440 | +1,637 |
| Leather boot and shoe | 734,673 | 16 | 332,940 | 45 | 79,899 | 80,119 | +220 |
| Machine tools | 218,045 | 6 | 51,492 | 24 | 16,128 | 16,464 | +336 |
| Machine tool accessories | 125,630 | 6 | 38,506 | 31 | 10,906 | 10,560 | −346 |
| Machinery (not elsewhere classified) | 964,151 | 11 | 134,526 | 25 | 31,853 | 32,521 | +668 |
| Men's, youths', and boys' clothing | 530,102 | 10 | 85,807 | 16 | 26,741 | 27,403 | +662 |
| Petroleum producing and refining | 2,461,127 | 8 | 1,858,537 | (2) | 605,147 | 655,191 | +50,044 |
| Radios and phonographs | 275,870 | 7 | 208,263 | 76 | 49,262 | 49,633 | +371 |
| Rubber products | 902,329 | 5 | 552,268 | 61 | 193,113 | 207,662 | +14,549 |
| Saw, file and hand tools | 105,055 | 6 | 29,056 | 28 | 9,538 | 9,613 | +75 |
| Steel castings | 2,720,020 | 6 | 53,090 | 21 | 13,660 | 12,807 | −853 |
| Steel works and rolling-mill products | | 5 | 506,244 | | 91,043 | 82,438 | −8,605 |
| Woolen and worsted | 735,905 | 22 | 253,865 | 35 | 35,982 | 32,163 | −3,819 |

[1] Combined sales exceed census value, owing to difference of classification in reporting.
[2] Combined sales include exports not included in census value of product.

NOTE.—Total value of products, all manufacturing industries, as reported by 1939 Census of Manufactures, $56,828,807,000.

The sources of data used are the Federal Trade Commission's Industrial Corporation Reports for the year 1939. The method employed in the use of these reports involved the estimating of the increase in output and sales volume that would result from lengthening the workweek by 20 percent and the calculating of the estimated manufacturing cost of the added sales volume. The difference between the estimate of added sales and the estimate of the cost of the added sales indicates the extent to which gross manufacturing profit

earned in 1939 would be increased or decreased by the rise in the hours of operation. In those industries for which business-investment figures and figures of returns to investment are available for 1939, it is possible to show the effects of the change in hours in terms of percentages of return on the business investment, for the expansion of output is assumed to be a result, not of change in business investment,

TABLE 2.—*Estimated Effect of Overtime Wage Payments on Corporate Earnings in Specified Industries* [1]

[Values are in thousands]

COPPER PRODUCING AND MANUFACTURING INDUSTRY [2]

| Item | Amount | | |
|---|---|---|---|
| | 1939 | Increment with 20-percent increase in hours | |
| Net sales income | $409,247 | | |
| 16-percent increase with no price change | | | $65,480 |
| Cost elements that expand with volume: | | | |
| Direct materials | 107,273 | | |
| 16-percent increase with no price change | | $17,164 | |
| Production wages and salaries | 80,131 | | |
| 30-percent increase (20-percent increase in hours on 150 percent of standard rates) | | 24,039 | |
| All social-security and pension-fund payments | 3,778 | | |
| 30-percent increase with wages and salaries | | 1,133 | |
| Other variable costs and expenses | 75,910 | | |
| 20-percent increase with operating hours | | 15,182 | |
| Depreciation of plant facilities | 18,028 | | |
| 20-percent increase with operating hours | | 3,605 | |
| Finished goods purchased for resale | 8,436 | | |
| 16-percent increase with sales | | 1,350 | |
| Manufacturing cost of added sales | | | 62,473 |
| Increase in gross margin on sales available for return to business investment | | | 3,007 |
| Gross margin on sales | 119,469 | | 122,476 |
| Net return on business investment of $1,085,460,000 | 87,577 | | 90,584 |
| Rate of return on business investment (percent) | 8.07 | | 8.35 |

AGRICULTURAL MACHINERY AND TRACTOR MANUFACTURING INDUSTRY [3]

| | | | |
|---|---|---|---|
| Net sales income | $447,025 | | |
| 16-percent increase with no price change | | | $71,524 |
| Cost elements that expand with volume: | | | |
| Direct materials | 179,559 | | |
| 16-percent increase with no price change | | $28,729 | |
| Production wages and salaries | 91,608 | | |
| 30-percent increase (20-percent increase in hours on 150 percent of standard rates) | | 27,482 | |
| All social-security and pension-fund payments | 6,227 | | |
| 30-percent increase with wages and salaries | | 1,868 | |
| Other variable costs and expenses | 31,323 | | |
| 20-percent increase with operating hours | | 6,265 | |
| Depreciation of plant facilities | 12,553 | | |
| 20-percent increase with operating hours | | 2,511 | |
| Finished goods purchased for resale | 10,606 | | |
| 16-percent increase with sales | | 1,697 | |
| Manufacturing cost of added sales | | | 68,552 |
| Increase in gross margin on sales available for return to business investment | | | 2,972 |
| Gross margin on sales | 121,375 | | 124,347 |
| Net return on business investment of | (4) | | |
| Rate of return on business investment | (4) | | |

[1] Source: Federal Trade Commission, Industrial Corporation Reports, Copper Producing and Manufacturing Corporations, Jan. 14, 1941—data in table are from consolidated statements of 6 leading corporations; Industrial Corporation Reports, Agricultural Machinery and Tractor Manufacturing Corporations, Oct. 29, 194 —data in table are from consolidated statements of 7 leading corporations.

[2] Average weekly hours per employee: Year 1939=38.2 hours; December 1940=40.1 hours. (Bureau of Labor Statistics reports of average hours per wage earner for smelting and refining copper, lead, and zinc.)

[3] Average weekly hours per employee: Year 1939=37.7 hours; December 1940=39.5 hours. (Bureau of Labor Statistics reports of average hours per wage earner for a group designated as "agricultural implements, including tractors.")

[4] Not available.

but only of the change in hours of operation. In the case of industries for which 1939 net return data were not available, it has been assumed that net changes in gross margin would produce equal changes in net return.

The methods and the nature of the results are illustrated in table 2 by detailed tabulations for the copper producing and manufacturing industry and the agricultural machinery and tractor manufacturing industry.

If the productivity of labor remains the same in the overtime period as during the basic workweek, the increase output or net sales income would be 20 percent. The purpose of the studies was not to forecast corporate earnings with operations increased by 20 percent, but rather to estimate the effect of increasing operating schedules through the use of overtime, and it was desired to lean toward conservatism in making all necessary assumptions. In connection with the increase in output, for example, it was assumed that a lengthening of hours by 20 percent would increase output only 16 percent, a substantial allowance thus being made for fatigue and other factors that may reduce efficiency during the additional hours of work.

The comparisons made in the study assume that the 1939 operations from which the basic data were drawn were scheduled at approximately 40 hours per week. In most instances, the hours actually worked (which were affected both by overtime and by part time) averaged less than 40 per week. However, to the extent that overtime paid for at overtime rates was included in the 1939 costs, the increase in costs arising from overtime payments assumed in the studies is overstated, with a consequent understatement of the increased returns to investment or of the increased gross manufacturing profit. On the other hand, those industries that operated at less than 40 hours per week in 1939 could expand operations to 40 hours before overtime payments would be required, and their earnings with hours increased by 20 percent would be correspondingly greater than here estimated.

In estimating the costs of increasing output by the assumed 16 percent, it is necessary to distinguish between "variable" and "fixed" costs. Certain costs are not affected by the assumed increase in output, which presupposes no new investment but only the increased use of existing plant and only a moderate increase in volume of output. In estimating the increase in wages and salaries, it is assumed that all types of production wages and salaries would increase 30 percent as a result of the rise of 20 percent in time worked, paid for at the overtime rate of 150 percent of the base rate. This is an overstatement because a significant proportion of labor, especially of salaried employees, is not affected by the overtime requirements of the law. It is also assumed that social-security and pension-fund payments would be

increased by 30 percent, and this, as in the case of wages and salaries, is an overestimate. The items classed as "other variable costs and expenses" and as "depreciation of plant facilities" would be increased, by assumption, 20 percent, in accord with the increase in operating hours. In some instances it would be a safe assumption that the increase in cost would not be greater than the increase in output.

## *Findings of Study*

The comparison of earnings, estimated by the method described above, on the basis of a 20-percent increase in the workweek as compared with actual earnings of 1939, indicates that, in general, the increase in income from sales without an increase in prices is more than adequate to absorb overtime charges and all other costs incurred as a result of the expansion. Table 3 shows the over-all effect, under the conditions assumed, of overtime payments versus increased volume on the combined earnings of the 260 corporations included in the study. The indicated net result of accelerating defense production by an increase of 20 percent in the workweek would be to increase annual "gross margin on sales" by $75,000,000 or 2.6 percent. This rate of increase in gross margin, of course, would produce a much larger expansion in the rate of net return to business investment, but the data available do not make the comparison possible. On the other hand, it is interesting to observe the quantitative effect on these final results of the study resulting from the conservatism of one of the basic assumptions employed in arriving at the estimated change in gross margin.

In table 4 the assumed expansion of production and sales income has been raised from 16 percent to 20 percent to show the contrasting effect of an increase in output directly proportional to the projected increase in working hours. The result is a gain of $449,360,000 in sales volume at an added cost of only $192,985,000, which would produce an expansion of gross margin, after paying overtime rates for the 20-percent increase in hours, of $331,659,000 rather than only $75,284,000 as estimated under the assumptions employed.

The study points out that far better results than those estimated should be achieved in actual experience and the contrast presented in table 4 indicates the upper range of the possible benefits to corporate earnings that may be experienced despite the payment of overtime wages. It is important that the findings, particularly those related to specific industries, be viewed in this light. However, this study assumes in effect that the production facilities of the industries examined were fully manned in 1939 or that output could be increased only by lengthening hours of work. Again, in actual practice the

number of workers employed would tend to be increased to operate idle facilities before overtime would be resorted to, achieving an expansion of output without the payment of higher average wage rates.

TABLE 3.—*Estimated Effect of Overtime Wage Payments on Corporate Earnings in Consolidated Operation of 260 Corporations in 26 Manufacturing Industries* [1]

[Values are in thousands]

| Item | Amount | | |
|---|---|---|---|
| | 1939 | Increment with 20-percent increase in hours [2] | |
| Net sales income | $11,234,499 | | |
| 16-percent increase with no price change | | | $1,797,540 |
| Cost elements that expand with volume: | | | |
| Direct materials | 4,377,008 | | |
| 16-percent increase with no price change | | $700,323 | |
| Production wages and salaries | 2,059,879 | | |
| 30-percent increase (20-percent increase in hours on 150 percent of standard rates) | | 617,967 | |
| All social-security and pension-fund payments | 148,684 | | |
| 30-percent increase with wages and salaries | | 44,607 | |
| Other variable costs and expenses | 956,042 | | |
| 20-percent increase with operating hours | | 191,210 | |
| Depreciation of plant facilities | 482,619 | | |
| 20-percent increase with operating hours | | 96,525 | |
| Finished goods purchased for resale | 447,650 | | |
| 16-percent increase with sales | | 71,624 | |
| Manufacturing cost of added sales | | | 1,722,256 |
| Increase in gross margin on sales available for return to business investment | | | 75,284 |
| Gross margin on sales | 2,911,302 | | 2,986,586 |

[1] Source: Federal Trade Commission, Industrial Corporation Reports, for the year 1939. Data in table are from consolidated statements of 260 leading corporations in 26 manufacturing industries whose products contribute to national defense.

[2] Average weekly hours per employee; Year 1931, all manufacturing=37.6 hours; durable goods=37.8 hours; nondurable goods=37.4 hours. December 1940, all manufacturing=39.8 hours; durable goods=41.2 hours; nondurable goods=38.4 hours.

TABLE 4.—*Data in Table 3 Recomputed to Show Effect of Assuming Increase in Sales Income Directly Proportional to Increase in Working Hours*

[Values are in thousands]

| Item | Amount | |
|---|---|---|
| | 1939 | Increment with 20-percent increase in hours |
| Net sales income | $11,234,499 | |
| 20-percent increase with no price change | | $2,246,900 |
| Cost elements that expand with volume: | | |
| Direct materials | 4,377,008 | |
| 20-percent increase with no price change | | $875,402 |
| Production wages and salaries | 2,059,879 | |
| 30-percent increase (20-percent increase in hours on 150 percent of standard rates) | | 617,967 |
| All social-security and pension-fund payments | 148,684 | |
| 30-percent increase with wages and salaries | | 44,607 |
| Other variable costs and expenses | 956,042 | |
| 20-percent increase with operating hours | | 191,210 |
| Depreciation of plant facilities | 482,619 | |
| 20-percent increase with operating hours | | 96,525 |
| Finished goods purchased for resale | 447,650 | |
| 20-percent increase with sales | | 89,530 |
| Manufacturing cost of added sales | | 1,915,241 |
| Increase in gross margin on sales available for return to business investment | | 331,659 |
| Gross margin on sales | 2,911,302 | 3,242,961 |

The statistics compiled by the Bureau show that the index of total employment in all manufacturing industries increased from an average of 96.8 in 1939 to 116.2 in December 1940, a gain of 20 percent, while average weekly hours of work rose during the same period from 37.6 to 39.8, or only 6 percent. In the durable-goods industries, whose gain has been sharper under the stimulus of the defense program than that of nondurable goods, employment has increased 34 percent and hours of work 9 percent. To the extent that output may be increased by bringing idle facilities into production, earnings are improved without the offsetting effects of either overtime wages or increased capital charges. Had table 4 been recast to include the effects of increased employment, as well as a straight-line increase of output with hours of work, the indicated improvement of earnings would have been greatly increased.

The three divisions of the iron and steel industry which are listed in table 1 (steel-works and rolling-mill products, steel castings, and gray-iron and malleable-iron castings) show a decline in gross margin on the basis of the analytical method used, which assumes a 20-percent decline in output per man-hour during the overtime period and takes no account of the industry's capacity to increase employment. Actually, the industry experiences an increase in productivity as rates of production expand and, furthermore, performance in recent months demonstrates that capacity operations can be attained with the payment of very little overtime. During the year 1939 hours of work for wage earners in blast furnaces, steel works, and rolling mills averaged 35.5 per week and the industry operated at 64.5 percent of capacity. In February 1941 operations had increased to virtual capacity but weekly hours averaged only 39.9. Thus, current statistics show that the steel industry has been able to increase its rate of production by approximately 50 percent since 1939 without incurring heavy overtime. Earnings reported for the first quarter of 1941 are at the highest level since 1929, and at several times the rate of 1939. The steel industry has not experienced the effects of overtime wage payments or of declining productivity, as hours of work have increased since 1939, that the assumptions of this analysis have set up as the factors offsetting the beneficial influence of added volume. The findings presented must be interpreted as an indication of what would have happened had the industry found it possible to expand production above the 1939 level only through overtime operations.

The most serious indicated decline in gross margin on sales is in the cotton textiles industry. (See table 1.) Declines also are indicated in knit goods and in woolen and worsteds. All these divisions of the textile industry had abnormally low margins of gross profit in 1939, as compared with the other groups studied, and in such instances the heavy use of overtime schedules to increase defense output

undoubtedly would reduce corporate earnings in the absence of price increases or other forms of compensation. The industries in which these conditions prevail and the individual corporations in other industries whose gross margin is too low to absorb overtime labor charges, however, are not representative of the important group of defense manufactures examined.

The study concludes that defense contract price or compensation policies should be sufficiently flexible to care for the exceptional case or for the marginal producer whose output is needed for defense, but that in general there is no need for an increase in prices or in other forms of compensation to offset the payment of overtime wages within the range of weekly hours through which overtime does not exceed 20 percent of nonovertime hours, or up to at least 48 hours per week. Generally speaking, the change in earnings that would result from accelerating production by a 20-percent increase in hours of work at full overtime rates would be small, but in the direction of improvement. With the exceptions noted, the yield on business investment would be sustained or improved without increased prices after the full absorption of overtime wage payments.

### *Continuous Industries*

Some of the industries included in the study here summarized, such as metal smelting and coke-oven operation, are of the continuous-process type. The conditions under which a continuous-process industry must resort to overtime hours and overtime payments, if there is to be an expansion of output, are somewhat different from the conditions confronting intermittent industries. A plant or an industry that is operating continuously at full capacity cannot, of course, increase its output by lengthening the man-shift, and in this respect differs from an intermittent plant or industry. Nevertheless, a continuous plant or industry rarely operates constantly at full capacity and it reduces or increases output either by a variation in the number of units in operation or by shut-downs. The average hours of work in continuous industries tend to vary with the percentage of capacity in operation, even when there is no scarcity of labor. Even when an industry is operating at full capacity, if the competition of other industries for workers makes no longer possible the maintenance of full-capacity operation on a straight-time basis, the industry would lose less by paying overtime and thereby continuing at full capacity than by reducing operations and output for the purpose of maintaining a straight-time basis.

### *Overtime*

A considerable increase in the amount of overtime is apparent from the Bureau of Labor Statistics' reports of average weekly hours.

Figures for most of the 16 industries covered herein are available and are given for the year 1939 and for December 1940 in table 5.

Average weekly hours reflect primarily the prevailing length of the scheduled working week but are affected by both part time and overtime, because they are calculated by dividing the total hours of work during the reporting pay-roll period (usually the week ending nearest the middle of the month) by the number of workers on the pay rolls during the same period. Usually the average hours worked are significantly lower than the scheduled hours or the full-time working week. The sharp rise in average weekly hours in most of the 26 industries indicates both a reduction of part time and an increase in overtime. The increase in overtime was, however, much greater than is indicated by the increase in average weekly hours. In 1939, maximum straight-time hours of work under the Fair Labor Standards Act were 42 per week but in December 1940 only 40 per week.

TABLE 5.—*Average Weekly Hours in Specified Industries, as Reported by Bureau of Labor Statistics, 1939 and December 1940* [1]

| Industry [2] | Average weekly hours | |
|---|---|---|
| | Year 1939 | December 1940 |
| Agricultural machinery and tractor manufacturing (agricultural implements, including tractors) | 37.7 | 39.5 |
| Aircraft manufacturing | 41.5 | 44.6 |
| Motor-vehicle manufacturing | 35.5 | 38.5 |
| Chemicals (industrial) manufacturing | 40.0 | 40.8 |
| Copper producing and manufacturing (smelting and refining—copper, lead, and zinc) | 38.2 | 40.1 |
| Cotton-textiles manufacturing | 36.7 | 38.0 |
| Electrical machinery and apparatus manufacturing | 38.5 | 43.0 |
| Engine, turbine and water-wheel manufacturing (engine, turbine, water-wheel, and windmill industry) | 40.0 | 45.4 |
| Gray-iron and malleable-iron castings manufacturing (foundry and machine-shop products industry) | 38.9 | 43.6 |
| Lead and zinc producing and manufacturing (smelting and refining—copper, lead, and zinc) | 38.2 | 40.1 |
| Leather boot and shoe producing and manufacturing | 35.7 | 36.4 |
| Machine-tool manufacturing | 42.9 | 50.6 |
| Machine-tool accessory and machinists' precision tool manufacturing | 42.9 | 50.6 |
| Men's, youths' and boys' clothing manufacturing | 35.7 | 33.5 |
| Petroleum producing and refining: | | |
| Producing | 38.3 | 36.7 |
| Refining | 36.1 | 37.3 |
| Radio and phonograph manufacturing | 38.5 | 40.5 |
| Rubber-products manufacturing | 36.9 | 39.7 |
| Steel-castings manufacturing (blast furnaces, steel works, and rolling mills) | 35.5 | 40.4 |
| Steel works and rolling-mill products (blast furnaces, steel works, and rolling mills) | 35.5 | 40.4 |
| Woolen and worsted manufacturing | 36.4 | 38.9 |

[1] Average weekly hours for the industries in table 1 not here included are not reported by the Bureau of Labor Statistics.

[2] Classification of industry group used in compiling labor statistics is not entirely uniform with Federal Trade Commission grouping in previous tables. The Bureau of Labor Statistics' designation is in parentheses.

# LABOR AND AGRICULTURAL MIGRATION TO CALIFORNIA, 1935–40

By Seymour J. Janow and William Gilmartin [1]


## *Summary*

A CONTINUOUS westward migration, to California, of people obviously in need of manual employment has been noted at all borders of the State during the past 5½ years. This movement reached a peak in 1936 and 1937 following the drought and dust storms in the Plains States. However, these were but peaks in an uninterrupted migration of population to California which is still in process. By far the greater number of distressed agricultural migrants have come from the South Plains, where the dislocating forces of depression, mechanization, and drought sent thousands westward in search of economic rehabilitation.

Agricultural families migrating westward in search of new homes were the predominant part of the border count. However, a steadily increasing proportion has consisted of seasonal laborers moving back and forth between California and other Far Western States to temporary job opportunities in agriculture. Some of those who were undoubtedly in search of permanent resettlement have been forced to join this itinerant army.

This relocation of population in response to changing economic opportunities may be expected to continue, especially since the relative attractiveness of California may be greatly enhanced by the extension of defense industries. The California and Arizona border counts will remain an important source of data on the westward migration of manual workers. Also, in a time when a relative scarcity of agricultural labor is anticipated, the border counts will continue to be valuable indexes to variations in the seasonal movement of agricultural laborers.


## *Migration to California*

The more than half a million persons, in parties, judged to be in need of manual employment, who entered California by motor vehicle in the 5½ years since July 1935, have been only a small fraction of the total traffic across the borders of the State; they were only a portion of the general population movement to California during the last decade. More than a million persons moved to California after 1930 and were still in the State in 1940, according to studies made by the Bureau of Agricultural Economics. Drawn from virtually all occu-

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pations, from servants and unskilled workers to highly trained professional people, they came from every State and in considerable numbers from as far as the large industrial centers of the Atlantic seaboard.[a]

Agricultural people were by no means a majority in the total movement of population into California. Approximately one-fourth of all the newcomers had been engaged in agriculture either as farmers or farm laborers before coming to California, according to the Bureau of Agricultural Economics survey.[2] However, the migratory agricultural workers have been the most distressed part ot this migration and have attracted most attention. Old automobiles, piled high with poor household belongings and crowded with persons of all ages, have been so obvious as symbols of this migration that the term "migrants" has become almost synonomous in California with "indigents," "drought refugees," "transients," "migratory workers," and "Joads" of the Grapes of Wrath.

These "migrants" arrived in California with little money and were unable to buy or rent decent housing. They built shackhouse aggregations that created new rural slums. Many became nomads and followed the far western harvests. These are the people whose problems have focused attention upon recent migrations to California.

## *Technique of Border Count*

To measure this movement of distressed manual workers into California, a continuous count was established at the borders of the State in July 1935.[3] Motor vehicles entering California must stop at border stations of the plant quarantine inspectors, where the cars are examined to see if they contain any fruits, vegetables, or plants which cannot be brought into the State. During this inspection no questions are asked of the car's occupants as to whether they are seeking "manual employment." However, the appearance and the household or camping equipment of agricultural and other laborers are familiar to the inspectors, and with the aid of these and other criteria they are able to tell which parties are in need of "manual employment." Inspectors report the number of persons in each vehicle, the State of car registration, and the race of the occupants. Persons traveling by bus are not counted.

The figures presented in this study are useful as an index to the movements of a special kind of job seeker—one who, in the judgment

[a] For further explanation of border count see note at end of article.

[2] U. S. Congress. House of Representatives. Select Committee to Investigate the Interstate Migration of Destitute Citizens. San Francisco Hearings, September 24 and 25, 1940 (pp. 2269-2326): Volume and Characteristics of Recent Migration to the Far West, by Seymour J. Janow. Washington, 1941.

[3] For the greater part of the period covered, the border-count statistics present only the gross movements into the State. The flow of manual laborers out of California has not been counted except for those leaving by way of Arizona since January 16, 1941.

of the border inspector, is "in need of manual employment." Because of the subjective element involved in the determination of the figures they cannot be used as a strict measure of the absolute size of the migration of manual workers to California. However, as approximately the same subjective judgments are made continuously, the border count can be regarded as a significant indicator of variations in the volume of the seasonal and annual migration of manual workers.[4]

### *Origins and Characteristics*

Between July 1935 and December 1940 border inspectors counted 411,916 manual workers entering California in parties in cars registered in other States and 88,353 such persons returning to the State in California cars.

These parties were made up of men, women, and children and included persons crossing the borders of California for many reasons and with a variety of destinations. Typically, they moved into the State in family groups. On the basis of a study of 2,648 families in migratory labor camps in California, it was found that the average family there had 2.1 persons actively in the labor market. This number is significantly high, as nearly half of the members of these families were less than 19 years of age. Almost all adults, including women, and nearly half the teen-age children were seeking employment.

Most of the manual workers were migrants primarily in the sense that they have left a residence of years as farmers or as laborers in the Plains States and were migrating to establish new homes in the Far West. Some of the persons counted by the border officials were seasonal agricultural workers moving in their regular work patterns from short-time jobs in the intensive crop areas of Arizona or the Southwest to the crops of California and the Pacific Northwest. Among these were not only white American families, but also single Filipino, Mexican, and Negro men following crop harvests over as many as five or six Western States.

Approximately 7 out of every 10 of the manual workers entered California in cars registered in the 15 States between the Mississippi River and the Rocky Mountains. Oklahoma alone was the source of nearly one-fourth of the total, and four States—Oklahoma, Texas, Arkansas, and Missouri—were the origin of approximately 50 percent of the 5½-year total. The other States most important were Kansas, Colorado, New Mexico, Nebraska, and Montana, in the order named.

One-tenth of these migrants came in cars which had been registered in Oregon and Washington, only 4 percent had their origin in the industrial States of the Great Lakes and the New England and Middle

[4] "Persons, members of parties in need of manual employment," is the designation used by plant quarantine inspectors in making this count. Hereafter, they will be referred to in this article as "manual workers."

Atlantic States combined, and less than 3 percent came from States lying south of Pennsylvania and the Ohio River, and east of the Mississippi River (see table 1.)

TABLE 1.—*Persons in Parties in Need of Manual Employment Entering California by Motor Vehicle, 1935–40, by Years and by State of Registration*

| State of auto registration | Total, July 1, 1935, to Dec. 31, 1940 | | Year of entry | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Number | Percent | July to Dec. 1935 | 1936 | 1937 | 1938 | 1939 | 1940 |
| | | | Percent | | | | | |
| *Out-of-State cars* | | | | | | | | |
| Plains States [1] | 277,413 | 67.3 | 62.7 | 73.4 | 69.9 | 63.5 | 66.3 | 63.6 |
| Oklahoma | 95,483 | 23.2 | 17.9 | 27.2 | 23.8 | 19.7 | 23.7 | 23.9 |
| Texas | 43,737 | 10.6 | 8.5 | 9.8 | 9.6 | 12.7 | 12.5 | 10.5 |
| Arkansas | 31,663 | 7.7 | 6.6 | 8.3 | 8.0 | 7.4 | 7.4 | 7.8 |
| Missouri | 24,587 | 6.0 | 5.7 | 6.9 | 6.9 | 6.0 | 4.9 | 4.6 |
| Kansas | 17,490 | 4.3 | 5.3 | 4.6 | 4.9 | 3.3 | 3.8 | 3.5 |
| Colorado | 14,629 | 3.5 | 3.8 | 2.8 | 4.1 | 3.4 | 3.6 | 3.7 |
| New Mexico | 13,289 | 3.2 | 3.7 | 2.9 | 2.9 | 3.5 | 3.7 | 3.0 |
| Nebraska | 11,290 | 2.7 | 3.0 | 3.6 | 3.3 | 2.1 | 2.0 | 2.1 |
| Montana | 5,317 | 1.3 | 1.9 | 1.1 | 1.2 | 1.3 | 1.2 | 1.3 |
| Iowa | 4,853 | 1.2 | 1.6 | 1.7 | 1.1 | 1.1 | .8 | .6 |
| South Dakota | 3,979 | 1.0 | 1.1 | 1.3 | 1.3 | .8 | .6 | .6 |
| Far Western States | 110,459 | 26.8 | 26.4 | 20.7 | 25.7 | 30.3 | 28.3 | 31.9 |
| Arizona | 51,054 | 12.4 | 7.2 | 8.7 | 11.5 | 16.0 | 14.9 | 15.8 |
| Oregon | 26,160 | 6.4 | 8.6 | 5.1 | 6.2 | 6.4 | 6.0 | 6.9 |
| Washington | 14,996 | 3.6 | 5.0 | 2.8 | 3.6 | 3.4 | 3.2 | 4.7 |
| Idaho | 9,833 | 2.4 | 2.8 | 2.1 | 2.2 | 2.2 | 2.5 | 3.0 |
| Industrial States [2] | 14,511 | 3.5 | 7.8 | 3.9 | 2.5 | 3.4 | 3.0 | 2.3 |
| Southern States [3] | 8,489 | 2.1 | 2.8 | 1.8 | 1.6 | 2.2 | 2.2 | 2.2 |
| Foreign | 1,044 | .3 | .3 | .2 | .3 | .6 | .2 | ---- |
| Total | ---- | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| | | | Number | | | | | |
| *Total cars* | | | | | | | | |
| Out-of-State | 411,916 | ---- | 43,072 | 84,601 | 91,030 | 67,833 | 64,552 | 60,828 |
| California | 88,353 | ---- | 10,056 | 12,743 | 14,155 | 17,333 | 14,694 | 19,372 |
| Total including returning California parties | 500,269 | ---- | 53,128 | 97,344 | 105,185 | 85,166 | 79,246 | 80,200 |

[1] "Plains States" as used here include Minnesota, Iowa, Missouri, Arkansas, Texas, Oklahoma, Kansas, Nebraska, North and South Dakota, Wyoming, Montana, Colorado, and New Mexico.
[2] Includes the industrial areas: New England, Middle Atlantic, East North Central States.
[3] Southern States include the States south of Pennsylvania and east of the Mississippi, including Louisiana.

## PERSONS PER VEHICLE

There were regional differences in the number of persons in each car. The average number of persons from the West South Central States was 5.4; from the Pacific States, 4.1; from the Mountain States, 4.6; West North Central States, 4.5; East South Central States, 5.0; New England and Middle Atlantic States, 4.1; East North Central States, 4.0; and South Atlantic States, 4.7.

## RACE

Manual workers were predominantly of the white race and observations indicate that they were overwhelmingly of native American

stock. Border officials classified 91.1 percent as white, 5.8 percent as Mexican, 1.4 percent as Negro, 1.1 percent as Filipino, and 0.6 percent as of other races.

Of the 29,234 Mexicans, 48 percent were from Arizona, New Mexico, Colorado, and the other Mountain States; 35 percent from the Pacific States, including California; and 13 percent from the West South Central States. Forty percent of the 6,838 Negroes came from West South Central States; 25 percent from Pacific States; and 23 percent from Mountain States. The 5,672 Filipinos were in cars of which 70 percent were registered in Pacific States and 28 percent in Mountain States.

### *Migration From the Great Plains*

Seventy percent of the manual workers included in the California border count came from the 15 States lying west of the Mississippi River, and east of Idaho, Utah, and Arizona. This vast area bisecting the country from north to south and extending from the Mississippi River to the Rocky Mountains contains, with the exception of a few counties, all the areas that were officially designated as drought counties both in 1934 and 1936.[5] Most of it, except Iowa, Missouri, and Arkansas, lies in the Great Plains.

Agricultural migration to California during the 1930's may be thought of as the delayed adjustment of an unwise distribution of population which had taken place in previous decades. That section of the Great Plains stretching from Oklahoma to North Dakota received the largest population increases in the Nation by internal migration during the period 1880–1920.[6]

It is now generally recognized that much of the settlement in these Plains States was founded on a type of farming unsuited to the area. During the 1890's drought and depression displaced people just as they did later, during the 1930's. During the nineties many who had been settled for a short time in western Nebraska, western Kansas, Montana, Wyoming, Colorado, and New Mexico moved away. "The western sections of Kansas and Nebraska and the drier portions of other States suffered net losses in 114 counties, and in some areas were abandoned altogether."[7] Again in the 1930's, continued

[5] Approximately half of the families included in the Bureau of Agricultural Economics' migration survey of all population moving to California in the 1930's came from this same area. That survey indicated that more than three-fourths of all agricultural families migrating to California during the 1930's came from these 15 States. Of all families coming from the Great Plains States, half were engaged in agriculture prior to migration. (U. S. Congress. House of Representatives. Select Committee to Investigate the Interstate Migration of Destitute Citizens, San Francisco Hearings, September 24 and 25, 1940 (pp 2260-2326): Volume and Characteristics of the Recent Migration to the Far West, by Seymour J. Janow. Washington 1941.)

[6] Goodrich, Carter. Migration and Economic Opportunity. Philadelphia, University of Pennsylvania Press, 1938, p. 676.

[7] U. S. Works Progress Administration. The People of the Drought States, by Conrad Taeuber and Carl C. Taylor. Washington, 1937.

agricultural depression, the drought and dust storms of 1934 and 1936 and, finally, increasing mechanization, forced people to leave.

The recent effects of mechanical cultivation on the cotton lands of the Southwest have been described by Prof. Paul S. Taylor as follows:

> The landscape and towns of the western Cotton Belt today show clearly the effects of spreading displacement. We had believed that these would not appear until the manufacture of mechanical cotton pickers in commercial quantities. However, displacement is occurring now over large areas because of introduction of all-purpose tractors and auxiliary machinery. In west Texas, the Black-Wax Prairie, the Panhandle, and the southwest quarter of Oklahoma, consolidation of cotton farms and displacement of substantial tenant farmers is proceeding rapidly. Landlords replace their tenants with tractors and hired laborers—sometimes 1, sometimes 6 or 8 or 10 laborers, when their holdings are large. Tenants with foresight and sufficient resources buy tractors, rent a second farm, operate them both—and another white American farm family has been cut from the land. * * * A stream of distressed humanity forms and hopefully seeks outlet to the West, in Arizona and California.[8]

The total population of Oklahoma, Kansas, Nebraska, South Dakota, and North Dakota was less in 1940 than in 1930. The number of farms in Texas decreased between 1930 and 1940 by 16 percent, in Oklahoma by 12 percent, in Colorado by 14 percent, and in Kansas by 6 percent. Although approximately the same proportion of the national population was living in rural areas in 1940 as in 1930, this was not true of the five States that lost population in the decade. The proportion of the total population living in rural areas declined between 1930 and 1940 by 3 percent in Oklahoma, 4 percent in Texas, 3 percent in Kansas, 4 percent in Nebraska, 4 percent in North Dakota, and 6 percent in South Dakota. The substantial emigration from the Great Plains is a consequence of unsuitable land use, depression, and mechanization, and migration of manual workers to California is one of its major manifestations.

### *Entry via Arizona Border*

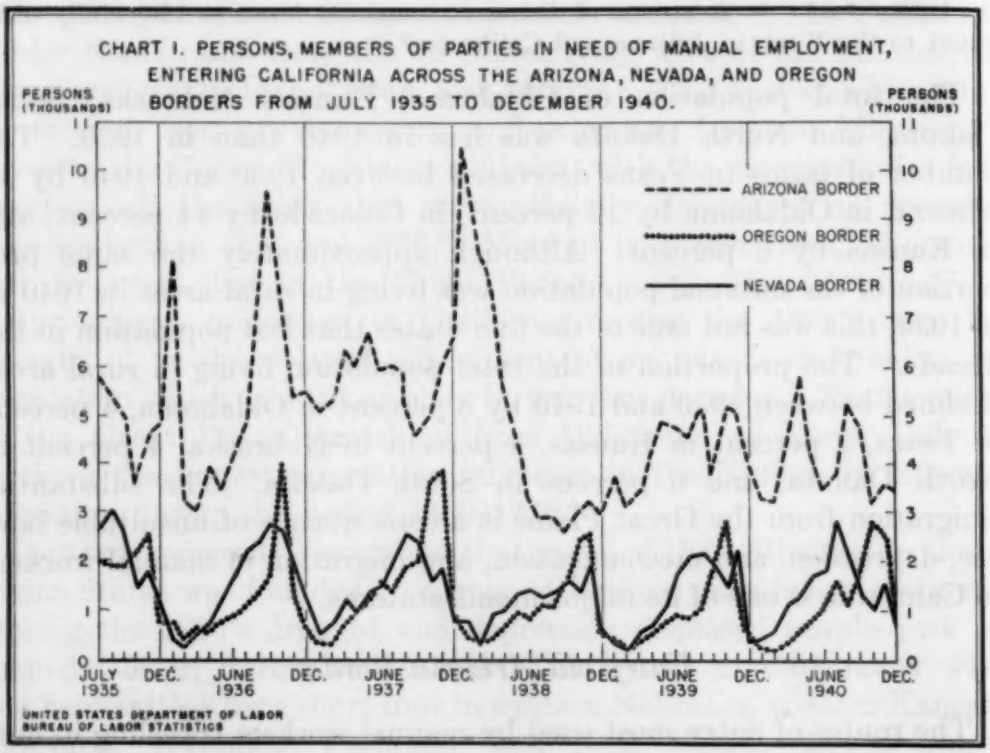
The routes of entry most used by manual workers traveling in out-of-State cars have been those of the southeastern border of California. Sixty percent of these persons entered across the Arizona border, 21 percent across the Nevada border, and 19 percent by way of Oregon. The relatively greater proportion of entries across the Arizona border is due to the facts that (1) Arizona is on a convenient route from the most important sources—Oklahoma, Texas, Arkansas, Missouri, and New Mexico; (2) Arizona and New Mexico offer some employment opportunities en route to persons moving westward; and (3) seasonal laborers move to Arizona from California for the harvests and then are counted as they return to California.

[8] U. S. Congress. Hearings before the Temporary National Economic Committee. Part 30: Technology and Concentration of Economic Power. Washington, 1940, p. 17042.

Following the worst droughts and dust storms, the westward migration of manual workers into California by way of Arizona reached a peak in 1936 and 1937 and during the first months of 1938. The large volume in 1936 and 1937 was followed by a sharp reduction in 1938, and in 1939 the flow was less than in 1938; there was a slight increase in 1940 over 1939.

More than three-fourths of the parties of manual laborers entering California on the Arizona border came from the Plains States of Oklahoma, Texas, Arkansas, Missouri, Kansas, Nebraska, North Dakota, South Dakota, Wyoming, Colorado, and New Mexico.

Apparently, this westward migration has not followed a seasonal pattern. In no 2 years on the Arizona border were the peak or low months the same. Those months which were the time of heaviest




inflow in 1 year were in the next year the months of smallest migration. (See chart 1.)

### *Entry via Nevada Border*

More than half of the movement of manual laborers across the Nevada border of California had its origin in the North Plains States of the Dakotas, Nebraska, Kansas, and the Mountain States of Idaho, Colorado, Wyoming, Utah, and Montana. Unlike the migrations across the Arizona border, this movement has been approximately constant during each of the past 5½ years. The count at this border indicates some seasonal variations. Relatively few are counted during the first months of each year; the great majority enter the

State within a 4- or 5-month period, usually between July and November. (See chart 1.)

### *Entry via Oregon Border*

The movement of manual workers up and down the coast is primarily for seasonal employment and does not represent population moving to an area for resettlement. Therefore, at the Oregon border of California the count is more nearly an index to a seasonal pattern followed by migratory agricultural laborers. More than two-thirds of the persons counted at this border traveled in cars registered in Oregon, California, and Washington. The peak exodus from Oregon in each year came in October or November as large numbers of farm laborers moved out of the Northwest at the conclusion of harvests there to seek work in the winter crops of California and Arizona. In each year, the low month for this southward movement was March or April. (See chart 1.)

### *Shift in Route of Migration*

Manual laborers from the Plains States have altered the routes of entry noticeably since 1936. In that year 76 percent of the manual workers from the States between the Rocky Mountains and the Mississippi River entered California by the Arizona border and 17 percent by the Nevada border. By 1940 the proportions from these three regions were 72 percent by way of Arizona and 22 percent by way of Nevada.

The shift in the routes of migration is more striking when those parties coming from Oklahoma, Texas, and Arkansas (constituting more than 40 percent of the 5½-year total) are considered separately. Ninety-four percent of those coming from these three States crossed the Arizona border of California in 1936, but only 83 percent of the total from these States came to California this way in 1940. The percentage of manual laborers from this area entering by way of Nevada increased by about the same amount as that on the Arizona border fell. (See table 2.)

TABLE 2.—*Proportion of Manual Workers in Parties in Cars With Oklahoma, Texas, and Arkansas Licenses Entering California From Arizona, Nevada, and Oregon, by Years*

| Borders of California | Percent of persons entering California | | | | | |
|---|---|---|---|---|---|---|
| | 1935 | 1936 | 1937 | 1938 | 1939 | 1940 |
| Arizona | 91.4 | 94.2 | 93.6 | 92.4 | 88.2 | 82.8 |
| Nevada | 5.5 | 3.5 | 3.3 | 4.8 | 9.4 | 14.8 |
| Oregon | 3.1 | 2.3 | 3.1 | 2.8 | 2.4 | 2.4 |

Most of the areas where agricultural families have resettled in California are reached most directly from the South Plains by way of

Nevada; moreover, 75 percent of the seasonal labor requirements in California are in counties not proximate to the California-Arizona border.

This tendency of larger numbers of manual workers from the Southwest to avoid Arizona is probably explained by the following factors: better knowledge of areas of resettlement in California and more direct routes to them; disappointments of earlier migrants in their attempts to locate in Arizona or the Imperial Valley of southern California, which are essentially areas of seasonal employment rather than of resettlement; intention of some workers to move on from California to the Pacific Northwest.

### *Manual Labor and Total Traffic*

The parties of manual laborers were but a small proportion of the total persons counted by the border inspectors as entering the State. For the 5-year period 1936–40, 4,848,658 cars entered California, of which only 1.9 percent were occupied by persons classified by border officials as in need of manual employment.[9] The number of persons entering the State during this period was 13,367,665, of which 447,141 or 3.3 percent were members of parties of manual workers. The average number of persons in the parties of manual laborers was 4.7, whereas the average number of persons per car for all entrants was only 2.8.

The slowing down of the migration from the South Plains to California since 1936–37 was coincident with a slight increase in the total motor-vehicle traffic entering the State. This is reflected in the decreasing proportion that the count of manual laborers makes up of the total traffic across the California-Arizona border. In 1936 manual workers were 8.4 percent of all persons crossing the Arizona border; by 1940 they were but 4.8 percent of the total. Changes in the proportion of the total traffic were not so great on the other borders. On the Nevada border the manual laborers were 2.1 percent of all traffic in 1936 and 1.4 percent in 1940. On the Oregon border the percentage changed from 2.1 in 1936 to 1.8 in 1940 (see table 3).[10]

[9] Border stations report on total traffic by counting every car entering California across all borders of the State. They do not count the cars of persons who live within a few miles of the border. As the count of the total persons entering California is available for only the 5-year period, January 1, 1936, to December 31, 1940, the count of the manual laborers has been adjusted to this same period whenever comparisons are made. This total border count includes parties returning to California in cars with California license plates. When cars with California license plates are omitted from the count, the out-of-State cars entering California in the 5½ years numbered 2,386,789, of which 77,335 or 3.2 percent contained parties in need of manual employment.

[10] The State of car registration is noted for every car counted; however, this information has been made available only for the year 1939. In 1939 approximately half of all the cars in the total traffic crossing all borders of California had California license plates. Nine percent of all cars were registered in Oregon, 5 percent in Arizona, and 4 percent in Washington. Therefore, in 1939 approximately 7 out of every 10 cars entering California were either California cars or those from other Far Western States.

## *Seasonal Labor Migration*

Newcomers to the principal valleys of the Far West can compete for work in agriculture on substantially equal terms with previously established agricultural laborers. This is possible because in western agriculture the relationship between employer and farm laborers is largely impersonal. High proportions of hired laborers work in large groups on a small number of farms. The seasonality of employment, the method of piece-rate payment used in most harvests which places the cost of developing experience and speed on the novice and the prevalence of the hired foreman, labor contractor, and association manager in the role of employer make it possible for a newcomer immediately to compete in this labor market.

TABLE 3.—*Persons in Parties in Need of Manual Employment, Entering California by Borders as a Percentage of all Traffic, 1936–40*

| Year | Arizona border | | | Nevada border | | | Oregon border | | |
|---|---|---|---|---|---|---|---|---|---|
| | All traffic [1] | Persons in parties of manual laborers [1] | Percent parties of manual laborers were of total traffic | All traffic [1] | Persons in parties of manual laborers [1] | Percent parties of manual laborers were of total traffic | All traffic [1] | Persons in parties of manual laborers [1] | Percent parties of manual laborers were of total traffic |
| Total | 4,573,931 | 292,994 | 6.4 | 5,007,828 | 80,767 | 1.6 | 3,785,906 | 73,380 | 1.9 |
| 1936 | 771,257 | 65,109 | 8.4 | 850,519 | 17,694 | 2.1 | 702,319 | 14,541 | 2.1 |
| 1937 | 906,792 | 68,796 | 7.6 | 919,520 | 17,569 | 1.9 | 762,123 | 18,820 | 2.5 |
| 1938 | 937,516 | 57,866 | 6.2 | 905,355 | 13,965 | 1.5 | 683,873 | 13,335 | 1.9 |
| 1939 | 942,396 | 52,119 | 5.5 | 1,136,196 | 14,820 | 1.3 | 818,672 | 12,307 | 1.5 |
| 1940 | 1,015,970 | 49,104 | 4.8 | 1,196,238 | 16,719 | 1.4 | 818,919 | 14,377 | 1.8 |

[1] Includes persons reentering the State in cars registered in California.

Although the demand for agricultural labor remained approximately constant during the decade of the 1930's, many rural people migrating to California in these years sought employment in agriculture.[11]

While the great majority of those who sought employment in agriculture established what seemed to be fairly permanent residences,

[11] The situation of the majority of farmers who migrated to the Far West during the 1930's was substantially different from that of most other newcomers. Clerical workers, machine operators, mechanics, laborers, draftsmen, painters, and carpenters coming to the West faced a real problem of finding employment; however, if there were jobs available, then the necessary assets were the required experiences and skills. In contrast, the farmer, in order to follow his occupation in the West, needed, in addition to skill and experience, considerable amounts of capital with which to buy or rent a developed farm. The Bureau of Agricultural Economics migration surveys indicated that less than one-fifth of those who were farmers before coming were farm operators in the Far West at the time the survey was made. Approximately 30 percent of those who had been farmers reported that they were farm laborers in California. More than 60 percent of former farm laborers continued as agricultural laborers in California. (U. S. Congress. House of Representatives. Select Committee to Investigate the Interstate Migration of Destitute Citizens. San Francisco Hearings, September 24 and 25, 1940, pp. 2269–2326): Volume and Characteristics of Recent Migration to the Far West, by Seymour J. Janow. Washington, 1941.)

nevertheless, some became itinerants—that is, migratory agricultural laborers.[12]

Seasonal agricultural laborers who search for continuous employment frequently move over hundreds of miles between crop harvests. Within the Western States are a variety of climates, soil types, and other factors that result in a series of planting and harvesting dates between areas. As a result employment opportunities occur successively in areas that may be separated by hundreds of miles.

Agricultural workers move from the valleys of California to the Hood River Valley of Oregon and the Yakima Valley of Washington, the Arkansas Valley of Colorado, and the pea fields of Idaho, and to the Salt River Valley of Arizona. Peak demands in California and the Yakima Valley of Washington in September come 2 months after the maximum labor demands in Oregon, when the demand for labor in Oregon has fallen 30 percent from its peak in July. Maximum labor demand in Arizona occurs in November, when the requirements of agriculture in California, Oregon, and Washington are approximately at their lowest point. In California, for every 100 workers required in September, only 39 are needed in December; for every 100 workers employed in the second week of September in the Yakima Valley, less than 2 are needed in the second week of December. This is some index to the variations in labor demand that prompt the ceaseless migrations of thousands of agricultural laborers within the Western States.[13]

### *Border Count and Seasonal Migration*

The border count provides a partial index to the regular seasonal interstate migration of laborers moving to crop harvests. Movements of seasonal laborers, as distinct from those moving westward to resettle in California, are indicated by the parties in cars with California, Arizona, Oregon, and Washington license plates.

In addition to the 411,916 persons in parties of manual workers entering California between July 1935 and December 1940, in cars registered in other States, 88,353 such persons were counted reentering the State in cars registered in California. Thus, nearly 18 percent of the combined total of 500,269 persons were returning Californians.

Since 1935, manual laborers returning to California in cars registered in California constitute an increasing proportion of the total num-

[12] The Bureau of Agricultural Economics migration survey found that approximately 3 out of 4 agricultural people moved directly to California without stopping over for any considerable period while en route. Moreover, there is strong evidence that a great many chose specific local destinations in the Western States in advance of migration. (U. S. Congress, House of Representatives. Select Committee to Investigate the Interstate Migration of Destitute Citizens. San Francisco Hearings, September 24 and 25, 1940 (pp. 2269–2326): Volume and Characteristics of Recent Migration to the Far West, by Seymour J. Janow. Washington, 1941).

[13] Tetreau, E. D.: Seasonal Labor on Arizona Irrigated Farms, Reno, Western Farm Economics Association, 1937; Monthly Labor Review for August 1937: Seasonal Agricultural Labor in Yakima Valley, by Paul Landis; Oregon Planning Board, A Survey of the Demand for Agricultural Labor in Oregon, Portland, 1937.

ber of manual laborers. This seems to indicate that many have been added to the ranks of interstate seasonal laborers. The count of such persons coming into the State in California cars in each year is as follows: 1936, 12,743; 1937, 14,155; 1938, 17,333; 1939, 14,694; 1940, 19,372. The only deviation from a rising trend was in 1939. This deviation may be due to the sharp reduction in the Arizona cotton acreage for the 1938–39 season and the consequent drop in available work in Arizona for migratory farm laborers from California.[14]

The regular seasonal movement of agricultural workers crossing the Arizona border into California is obscured because the overwhelming majority counted on this border is composed of those migrating westward to resettle in California. However, entry of manual workers in cars registered in Arizona across the California-Arizona border conforms to a clear seasonal pattern. In each year the peak months came in April, May, and June, and the low months in October, November, and December, at the conclusion of the Arizona cotton harvest. The winter lettuce and pea season in the Imperial Valley, the spring pea harvests along the coast, cotton chopping in the San Joaquin Valley, followed by the spring and summer work in thinning and harvesting fruit of the San Joaquin, Santa Clara, and Sacramento Valleys, explain this seasonal exodus from Arizona (table 4).

TABLE 4.—*Persons in Parties in Need of Manual Employment, Entering California Through Arizona in Cars With Arizona Licenses*

| Month of arrival | Total 5-year period | | Year of entry | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1936 | | 1937 | | 1938 | | 1939 | | 1940 | |
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Total | 44,697 | 100.0 | 6,907 | 100.0 | 9,858 | 100.0 | 10,253 | 100.0 | 9,042 | 100.0 | 8,637 | 100.0 |
| January | 3,150 | 7.0 | 864 | 12.5 | 326 | 3.3 | 1,053 | 10.3 | 472 | 5.2 | 435 | 5.0 |
| February | 4,065 | 9.1 | 451 | 6.5 | 909 | 9.2 | 1,656 | 16.2 | 527 | 5.8 | 522 | 6.0 |
| March | 3,284 | 7.4 | 200 | 2.9 | 737 | 7.5 | 1,221 | 11.9 | 589 | 6.5 | 537 | 6.2 |
| April | 5,233 | 11.7 | 866 | 12.5 | 1,208 | 12.3 | 1,220 | 11.9 | 1,016 | 11.3 | 923 | 10.7 |
| May | 6,267 | 14.0 | 947 | 13.7 | 1,639 | 16.6 | 1,338 | 13.0 | 1,441 | 15.9 | 902 | 10.5 |
| June | 6,269 | 14.0 | 1,134 | 16.4 | 1,612 | 16.4 | 998 | 9.7 | 1,395 | 15.4 | 1,130 | 13.1 |
| July | 4,224 | 9.5 | 578 | 8.4 | 949 | 9.6 | 734 | 7.2 | 972 | 10.8 | 991 | 11.5 |
| August | 4,228 | 9.5 | 570 | 8.3 | 593 | 6.0 | 696 | 6.8 | 1,063 | 11.8 | 1,306 | 15.1 |
| September | 2,473 | 5.5 | 396 | 5.7 | 471 | 4.8 | 398 | 3.9 | 413 | 4.6 | 795 | 9.2 |
| October | 2,103 | 4.7 | 281 | 4.1 | 392 | 4.0 | 401 | 3.9 | 563 | 6.2 | 466 | 5.4 |
| November | 1,615 | 3.6 | 307 | 4.5 | 466 | 4.7 | 269 | 2.6 | 265 | 2.9 | 308 | 3.6 |
| December | 1,786 | 4.0 | 313 | 4.5 | 556 | 5.6 | 269 | 2.6 | 326 | 3.6 | 322 | 3.7 |

Across the Oregon border the regular seasonal pattern of agricultural laborers is demonstrated with extreme clarity in the entries of cars

[14] Almost 55 percent of the returning Californians enter the State across the Arizona border. The peak month of entries of manual workers in California cars at this border was either December or January in each year. The low months were usually June or July. The monthly distribution of entry of these California parties does not conform to a sharp seasonal pattern, however.

registered in Oregon and those returning in cars with California license plates. In each year between 31 and 36 percent of the total count (for the year) of those entering in cars with California, Oregon, and Arizona licenses came into California during October and November—the months when seasonal workers move out of the northwest to the winter crops of southern California and the Arizona cotton and vegetable harvests. Less than 10 percent leave the Northwest during January, February, and March (table 5).

TABLE 5.—*Persons in Parties in Need of Manual Employment, Entering California From Oregon in Cars With Oregon and California Licenses*

| Month of arrival | Total 5-year period | | Year of entry | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1936 | | 1937 | | 1938 | | 1939 | | 1940 | |
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Total | 38,930 | 100.0 | 6,936 | 100.0 | 9,112 | 100.0 | 7,584 | 100.0 | 7,003 | 100.0 | 8,295 | 100.0 |
| January | 1,225 | 3.1 | 377 | 5.4 | 181 | 2.0 | 190 | 2.5 | 266 | 3.8 | 211 | 2.5 |
| February | 951 | 2.5 | 273 | 4.0 | 186 | 2.0 | 195 | 2.6 | 175 | 2.5 | 122 | 1.5 |
| March | 1,496 | 3.9 | 410 | 5.9 | 371 | 4.1 | 255 | 3.4 | 261 | 3.7 | 199 | 2.4 |
| April | 2,064 | 5.3 | 321 | 4.6 | 555 | 6.1 | 393 | 5.2 | 404 | 5.8 | 391 | 4.7 |
| May | 2,764 | 7.1 | 452 | 6.5 | 645 | 7.1 | 635 | 8.4 | 480 | 6.9 | 552 | 6.7 |
| June | 3,255 | 8.4 | 487 | 7.0 | 882 | 9.7 | 590 | 7.8 | 631 | 9.0 | 665 | 8.0 |
| July | 3,870 | 9.9 | 674 | 9.7 | 765 | 8.4 | 762 | 10.0 | 561 | 8.0 | 1,108 | 13.4 |
| August | 3,632 | 9.3 | 702 | 10.1 | 912 | 10.0 | 653 | 8.6 | 634 | 9.0 | 731 | 8.8 |
| September | 5,000 | 12.8 | 790 | 11.4 | 954 | 10.5 | 1,003 | 13.2 | 973 | 13.9 | 1,280 | 15.4 |
| October | 7,835 | 20.1 | 1,545 | 22.3 | 1,809 | 19.8 | 1,349 | 17.8 | 1,626 | 23.2 | 1,506 | 18.1 |
| November | 5,242 | 13.5 | 662 | 9.6 | 1,467 | 16.1 | 1,230 | 16.2 | 698 | 10.0 | 1,185 | 14.3 |
| December | 1,596 | 4.1 | 243 | 3.5 | 385 | 4.2 | 329 | 4.2 | 294 | 4.2 | 345 | 4.2 |

## *Arizona-California Border Count*

The Arizona border count, in conjunction with the California count, provided for the year 1940 information not previously available. Approximately the same number of persons in need of manual employment was counted entering Arizona from the east moving westward as was counted entering California from Arizona during 1940. Also, the States of car registration are substantially in the same order of numerical importance. This indicates that the parties entering California from Arizona are in most instances the same parties counted entering Arizona from the east. However, among those entering California the greater importance of cars registered in California and Arizona is evidence that many parties are moving or returning to California from an indefinite period of residence in Arizona and are not coming directly from the east.

While it is clear that the westward-moving population entering Arizona from the east in most cases had California as a destination, the seasonal demand for agricultural labor within Arizona materially retards and modifies this migration. High seasonal demands for agricultural labor in the cotton and truck crops of Arizona during September, October, November, and December provide employment

for migrants moving westward and also draw many seasonal agricultural laborers from California.

In February the total number of manual laborers entering California from Arizona was 120 percent of the number entering Arizona from the east. This disparity was due to parties from California and Arizona returning to California in addition to migrants from the east continuing to California after a short-time residence in Arizona. This disproportion continued in March, April, June, July, and August. However, when the demand for seasonal labor increased in Arizona, those moving westward into California from Arizona were only 80 percent of the number entering Arizona from the east in September, 61 percent in October, 55 percent in November (the peak month for labor demand in Arizona), and 71 percent in December. (See chart 2 and table 6.)

TABLE 6.—*Persons in Parties in Need of Manual Employment, entering Arizona and California by Motor Vehicle, January 1 to December 31, 1940, and January 1 to March 31, 1941*

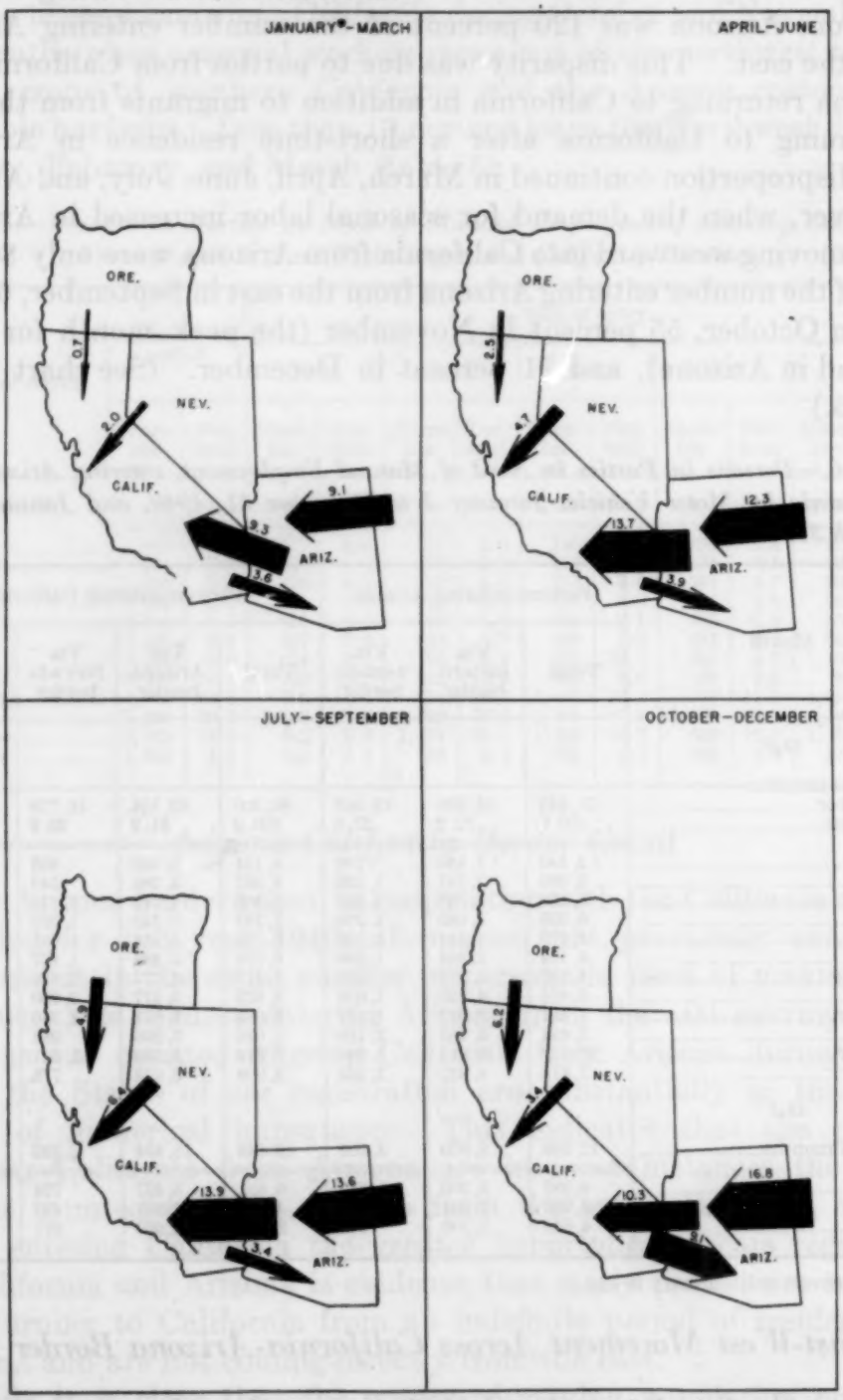
| Month | Persons entering Arizona | | | Persons entering California | | | |
|---|---|---|---|---|---|---|---|
| | Total | Via eastern border | Via western border | Total | Via Arizona border | Via Nevada border | Via Oregon border |
| *1940* | | | | | | | |
| Total for 12 months: | | | | | | | |
| Number | 71,844 | 51,886 | 19,958 | 80,200 | 49,104 | 16,719 | 14,377 |
| Percent | 100.0 | 72.2 | 27.8 | 100.0 | 61.2 | 20.9 | 17.9 |
| January | [1] 2,540 | [1] 1,840 | [1] 700 | 4,131 | 3,346 | 468 | 317 |
| February | 3,969 | 2,741 | 1,228 | 4,057 | 3,288 | 543 | 226 |
| March | 6,198 | 4,543 | 1,655 | 6,100 | 4,645 | 1,114 | 341 |
| April | 6,323 | 5,085 | 1,238 | 7,747 | 5,849 | 1,307 | 591 |
| May | 5,670 | 4,344 | 1,326 | 6,741 | 4,314 | 1,631 | 796 |
| June | 4,164 | 2,864 | 1,300 | 6,374 | 3,494 | 1,807 | 1,073 |
| July | 4,189 | 3,273 | 916 | 8,417 | 3,772 | 2,956 | 1,689 |
| August | 5,464 | 4,426 | 1,038 | 8,673 | 5,277 | 2,200 | 1,196 |
| September | 7,421 | 5,942 | 1,479 | 8,084 | 4,811 | 1,286 | 1,987 |
| October | 7,454 | 5,285 | 2,169 | 7,056 | 3,206 | 988 | 2,862 |
| November | 10,577 | 6,611 | 3,966 | 7,812 | 3,624 | 1,641 | 2,547 |
| December | 7,875 | 4,932 | 2,943 | 5,008 | 3,478 | 778 | 752 |
| *1941* | | | | | | | |
| Total for 3 months | 12,999 | 9,900 | 3,099 | 19,846 | 15,894 | 2,192 | 1,760 |
| January | 4,387 | 3,260 | 1,127 | 6,651 | 5,497 | 724 | 430 |
| February | 3,957 | 2,934 | 1,023 | 4,927 | 3,937 | 497 | 493 |
| March | 4,655 | 3,706 | 949 | 8,268 | 6,460 | 971 | 837 |

[1] Count covers only January 16–31.

## *East-West Movement Across California-Arizona Border*

During the first 9 months of 1940, the number of manual workers moving eastward out of California into Arizona fluctuated between one-third and one-fifth of the number counted entering California by this same route. However, in October, the parties entering Arizona from California rose to 68 percent of the number leaving Arizona for California; in November more such persons came to Arizona from

CHART 2. NUMBER OF PERSONS, MEMBERS OF PARTIES IN NEED OF MANUAL EMPLOYMENT, ENTERING ARIZONA AND CALIFORNIA DURING 1940, BY QUARTERS.




The relative size of the arrows indicates the total number of these persons entering the states by the border through which the arrow points. (Numbers are in thousands)

*ARIZONA COUNT BEGAN JANUARY 16, 1940

UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

California than moved westward into California; and in December, the ratio of the eastward movement to the westward movement as measured at the California-Arizona border was 85 percent (chart 2). In short, during October, November, and December, there were almost equal numbers of manual workers moving in opposite directions across the California-Arizona border.

For the first 3 months of 1941 about the same number moved into Arizona both from the east and from California as was the case in the first quarter of 1940. On the California-Arizona border more than five times as many were moving westward out of Arizona as were moving eastward into Arizona during this first quarter of 1941. For the corresponding period in 1940, the ratio was less than three to one. Whereas slightly more than 11,000 entered California from Arizona during the first quarter of 1940, nearly 16,000 were enumerated at this border in the first quarter of 1941. Whether or not the increasing attractiveness of the defense industries in California was responsible for this greater exodus from Arizona is not yet known.

More than 12,000 persons in California cars entered Arizona across the California border in the last 11 months of 1940. For the same 11 months, 9,465 persons in California cars returned to California on this border. Hence there was a net outflow of nearly 3,000 persons from California in California cars during 1940 on this border. During the first 3 months of 1941, 4,640 persons in cars registered in California returned to California across the Arizona border; only 1,906 persons left in California cars by this border. When the total 15 months are considered, it is found that about the same number of Californians returned to California as had moved to Arizona by this route during this period.

Nearly half of all of the parties in California cars entering Arizona during 1940 were concentrated in October, November, and December, the peak harvest months in Arizona.

Those parties with Arizona license plates serve as an excellent index to the seasonal movement of agricultural laborers between Arizona and California. Manual laborers with cars registered in Arizona left Arizona for California largely in April, May, June, July, and August, which are the months when seasonal labor demand is at its lowest in Arizona and relatively high in California; they return to Arizona largely during September, October, November, and December, the peak harvest season in Arizona. (See table 4.)

While in the 15 months from January 1940 through March 1941 the same number of Californians who entered Arizona returned to California from Arizona, all those persons in Arizona cars who left Arizona did not by any means return. During these 15 months 10,716 persons in parties of manual laborers left Arizona for California in cars with Arizona license plates but only 2,514 returned from California. The

fact that less than one-fourth of these manual laborers return is not due to a change in license plates, for both the California and Arizona harvest seasons are within the same calendar year. The probable explanation is that Arizona has served as a transitional place of residence and employment for agricultural population migrating to California and the Pacific Northwest. Many who are migrating westward stop over in Arizona for one or two harvest seasons and then move on to California.

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NOTE.—This article presents a 5½-year summary of the count, made by the plant quarantine inspectors of California at all borders of the State, of persons "members of parties in need of manual employment" entering California by motor vehicle. Previous articles reporting this count have appeared in the Monthly Labor Review for February 1936 (p. 312), December 1936 (p. 1355), March 1937 (p. 537), and August 1938 (p. 240). The count was initiated by the California Department of Agriculture in July 1935 at the request of the California Emergency Relief Administration. The count has been continued and its data periodically summarized by the Farm Security Administration and, more recently, by the Bureau of Agricultural Economics. In January 1940, the Arizona Commission of Agriculture and Horticulture, at the suggestion of the Bureau of Agricultural Economics, began a similar count at the border of Arizona. Since January 1940, the border counts of California and Arizona have been analyzed in a series of quarterly reports by the Bureau of Agricultural Economics and the Farm Security Administration. The interest in and the usefulness of these data are due to the work of Professor Paul S. Taylor of the University of California. The authors acknowledge their indebtedness to Professor Taylor for a careful reading of this article and for valuable suggestions in its preparation.

# ACTIVITIES OF THE WASHINGTON (D. C.) SELF-HELP EXCHANGE


## *Summary*

THE Washington (D. C.) Self-Help Exchange was started in July 1937 by persons not themselves in need of its benefits but who were interested in helping the unemployed. The first activities that were undertaken were the repair and laundering of clothing, and barber service. The idea in furnishing these services first was to enable the unemployed person to make himself presentable before seeking work. Very shortly the need for bread and meals led to the opening of the bakery and cafeteria. One by one new departments were opened as the need for them was expressed and the resources of the organization would permit.

By the end of 1940 the association was operating 29 departments. In these departments the members ("participants") work part or full time, as they choose, receiving therefor one piece of scrip for each hour worked. This scrip can be used to purchase any of the goods or services provided at the Exchange. Nothing is sold for cash or outside the membership and nothing is given away. Each article is priced (in terms of scrip-hours) according to the amount of work that has gone into its manufacture or (in the case of salvaged articles) the time spent in renovation as well as the intrinsic worth of the commodity.

The main activities of the association are housed in two buildings which it rents. It also operates a 35-acre farm and a rooming house for white unattached men.

The association receives donations in cash and commodities from individuals, businesses, and organizations in the community, clerical and other assistance from a WPA project and NYA workers, and various services contributed by students from a local university and others. It has also had several Federal grants and funds made available through the WPA.


## *Policies of the Exchange*

The Exchange operates on a basis different from that of many of the other self-help organizations. It is not a place where workers meet and exchange services with each other or barter articles which they possess. Some of the groups that were in operation early in the depression encouraged this kind of exchange and a few even accepted commodities from individual members, giving them redeemable

scrip and placing these articles on display so that they might be bought by other members. Most of the self-help groups at that time exchanged the labor of the members for commodities, and many elaborate barter arrangements were made. As many as five or six "swaps" might be made before the organization finally obtained the articles desired.

In the Washington Exchange the participants exchange their labor for goods, but not on an individual basis. They work in the activities carried on by the organization, being paid in scrip which is redeemable for any of the services or commodities offered at the Exchange.

At the time the Federal-grant system was in effect, the self-help units were encouraged to concentrate on the efficient production of one or a few articles. As a well-organized unit bending all its energies toward making a single commodity could soon satisfy the members' needs for it, the next problem was that of disposal of the surplus product. For this, in California, a central organization was created through which the output of the various units was exchanged. Even at the peak of the program, however, many basic needs of the participants were left unsatisfied under this arrangement.

Under the plan on which the Washington Exchange operates, the first endeavor was to provide food and to make the participants presentable in appearance, so that they could look for jobs with a greater chance of success. Since that time it has endeavored to fill an increasing number of the needs felt and expressed by the participants themselves. The activities are geared to the needs of the workers and there are therefore no surpluses to be disposed of outside the organization.

A participant in the Exchange activities can today spend his scrip for two full meals a day, as well as toast and coffee in the morning, bread, fresh vegetables from the Exchange farm, shoes and clothing of all kinds, furniture, rugs, quilts, mattresses, pillows, household appliances, beauty and barber service, laundry service, and fuel wood. Through special arrangements made by the Exchange, medical and dental care are also available.

### PRODUCTION POLICIES

As no cash remuneration is paid for work in its shops, the Exchange does not expect ever to be able to serve as a substitute for regular employment, nor give complete relief for the unemployed. Rather, it is a stop-gap between periods of irregular employment; its activities provide a supplement to small cash incomes of pensioners or persons in part-time or ill-paid jobs. Women may work to provide clothing, shoes, and haircuts for their children and to obtain beauty services which their husband's income will not provide. Painters may work at the Exchange on rainy days, and other men who can get only a few

days' work a week earn meals, barber service, vegetables, and clothing for the family. The average participant works about a third of full time at the Exchange. The remaining time he spends on cash jobs or in looking for work.

At the start the Exchange had to make a choice between two policies, i. e., whether to place the emphasis on efficient production or on providing work for the needy, regardless of skill or lack of it. If the former were chosen, then assistance would have to be refused to all inefficient workers; if the latter, then production standards would have to be lower and there would necessarily be a considerably larger cost of supervision. The Exchange chose the latter course, and its policy has always been to provide work for all applicants able to work and to make the labors of the less skilled as productive as possible.

Thus, all of its activities are directed toward the economic rehabilitation of the participants. The staff encourages those who through idleness have begun to deteriorate physically, nervously, or vocationally. This deterioration shows itself in slower movements, lack of alertness, loss of precision, and discouragement.

As far as possible workers are placed at jobs which they have done before or for which they show an aptitude. Workers who can be trained get opportunities to acquire new skills.

All of the activities of the Exchange are undertaken with an eye to the training and experience inherent in them, as well as to the use of their products by the participants. By their service in the various departments the workers fit themselves for cash jobs in private industry.

## *Scrip Earnings and Expenditures*

From the inception of the Exchange to the end of 1940, 4,446 workers had participated in its projects. Thus 306 persons worked 28,470 man-hours in the 6 months' operation in 1937; 1,076 persons worked 197,314 hours in 1938; 1,734 persons worked 422,554 hours in 1939; and 1,330 persons worked 430,014 hours in 1940.

The departments in which these hours were worked in 1940 and the services for which the scrip was spent are shown in the accompanying table.

TABLE 1.—*Scrip* [1] *Earnings and Expenditure at Washington (D. C.) Self-Help Exchange, 1940*

| Department | Scrip earned in 1940 | Service or commodity purchased | Scrip spent in 1940 |
|---|---|---|---|
| All departments | 430,014 | All services | 417,936 |
| Sewing | 93,751 | Bakery goods | 50,867 |
| Fuel wood | 63,705 | Baths | 428 |
| Kitchen and dining room | 50,612 | Brooms | 2,234 |
| Janitorial | 30,221 | Clothing | 77,948 |
| Farm | 23,157 | Dental service | 791 |
| Truck | 22,385 | Fruit and vegetables | 950 |
| Laundry | 20,663 | Furniture | 21,406 |
| Clerical | 18,476 | Haircuts | 2,409 |
| Woodworking | 16,241 | Household supplies | 20,600 |
| Store | 12,805 | Laundry | 3,955 |
| Painting | 12,151 | Lodgings | 2,663 |
| Handicraft | 8,788 | Lodgings at farm | 900 |
| Sorting and inspection | 8,469 | Manicures | 1,238 |
| Mattress | 8,434 | Mattresses | 9,182 |
| Bakery | 8,177 | Meals | 148,756 |
| Electrical shop | 5,861 | Optical service | 567 |
| Printing | 5,491 | Pressing and valet | 146 |
| Broom | 5,375 | Shaves | 583 |
| Barber service | 3,892 | Shoes | 19,554 |
| Shoe repair | 3,826 | Shoe repair | 10,795 |
| Watchman | 3,498 | Shoe shines | 116 |
| Hairdressing | 3,278 | Toilet articles | 313 |
| Upholstery | 2,136 | Toys and books | 1,785 |
| Tailoring | 1,824 | Transportation | 3,054 |
| Pressing and valet | 1,081 | Waves, facials, shampoos | 5,688 |
| Pastry | 123 | Wood | 16,947 |
| Loom | 14 | Other commodities | 7,941 |
| | | Miscellaneous | 6,120 |

[1] Each piece of scrip represents 1 hour's work.

## *Activities of the Exchange*

### SALVAGING OPERATIONS

All articles donated by persons or organizations in the community are delivered in the association's trucks to the branch building. Here they are sorted into bins, each labeled according to type of commodity, i. e., clothing, shoes, purses, toilet articles, etc., after which they go to the department which handles those particular articles and makes them ready for use. Articles of wearing apparel are first sterilized or laundered. If they need mending or remodeling they go to the sewing rooms; if in good condition, to the pressing room. They end in the store, of which each of the two buildings has one.

A number of departments work on the salvaging processes. These include the two sewing rooms, the two tailor shops, the furniture, upholstery, carpentry, paint, and electrical shops, the shoe-repair shop, and the quilting rooms.

In the two tailor shops (one in each building) the men's suits that are received are altered, mended, cleaned, and pressed.

The sewing department (see fig. 1) was one of the original activities of the exchange, and the two sewing rooms now operated are among the largest of the present projects. The donated garments are utilized for whatever purpose their condition permits. Thus perhaps two badly worn articles can be combined into one serviceable

garment. A woman's coat which cannot be repaired may be cut down for a child's coat; this has also been done in the case of a donation of firemen's jackets, from the heavy cloth of which warm winter children's coats were made.

Through a friend the Exchange receives from a local waste-paper establishment all of its used tracing cloth. This is laundered and the resultant linen is used to make sheer dresses for children, women's blouses, and handkerchiefs.

Everything is utilized. Large scraps are laundered and made into baby clothing. Smaller ones go to the quilting rooms and are used in quilts. The smallest pieces go to the handicraft department for use in the making of rag rugs, the pieces being dyed into various

FIGURE 1.—In the sewing rooms—which are among the oldest and largest projects—women supplement the family income.

shades of the same color or into harmonizing but contrasting colors. Some of the rugs are woven on a loom, some are braided.

The handicraft department also utilizes the waste from the other departments to make such articles as knitted bags and scarfs. Silk stockings are made into scatter rugs. A local art teacher has helped by giving the workers advice on the blending of colors, so that a good deal of creative work is done in this department.

The donated furniture arrives in all stages of disrepair. A great deal of it is of the overstuffed variety. In the upholstery shop the springs are repaired and tied, the padding fortified, and the covering repaired. The carpenter shop provides any necessary parts that are missing or so broken as not to be serviceable. In another section of

the furniture department the finish of the wood is removed, and in another a new finish—varnish or paint—is applied.

One seasonal activity of the furniture department is the repairing and painting of toys at Christmas time. (See fig. 2.)

Lamps, flat irons, radios, and electrical appliances of all kinds are repaired and put into working order in the electrical shop.

Unlike the other salvage shops, the shoe-repair shop works only on shoes which have already been sold to members. This is to prevent the wasting of new materials—soles, heels, etc.—on shoes which

FIGURE 2.—The toy department of the Exchange, which is especially busy before the holiday season.

may be of such an odd size that they fit nobody and cannot therefore be utilized.

The Exchange has succeeded in developing excellent community support for its salvaging operations. Hotels, department and specialty stores, churches, schools, and private families furnish a continuous flow of commodities. During 1940 salvage of an estimated value of over $35,000 was thus donated.

This salvage serves three purposes: It is valuable for furnishing employment to the members, for furnishing the means of brushing up on old skills or the learning of new trades, and for producing useful and badly needed articles for the homes of workers who have no cash for the purchase of new ones.

### PRODUCTIVE DEPARTMENTS

The departments which do salvage work also produce many articles from new materials purchased by the Exchange. Thus the sewing rooms make men's shirts, women's and children's clothing, sheets,

towels, pillow cases, etc. The carpenter shop makes any special equipment required in the Exchange buildings and also does the necessary maintenance, besides making such articles as bookcases and ironing boards, for the participants.

All of the brooms and brushes used in the activities of the various parts of the Exchange as well as for the home use of the members are made in the broom shop. (See fig. 3.)

The Exchange has since 1938 operated a 35-acre truck farm in nearby Maryland from which are produced vegetables not only for the cafeterias but also for home use of the participants. During the

FIGURE 3.—Making brooms and brushes. Some of the broomcorn is raised on the Exchange's farm.

1940 season the farm produced 531 dozen ears of sweet corn, and 1,217 bushels of general produce, as well as other products. Its total output was valued at $2,269 for the year. About 1,000 gallons of produce were canned for use in the Exchange cafeterias during the winter. (See fig. 4 and cover of this month's issue.)

The farm also produces a large part of the broom corn used in the broom shop.

The bread for the cafeterias is made in the Exchange bakery (fig. 5). The bakery also was one of the original departments. It began with 200 loaves a day. From this it has expanded until now it produces up to 1,000 loaves daily, including white, whole wheat, oatmeal, and raisin bread. The output not used in the cafeterias is sold for scrip to the members.

One of the major projects since the organization was started has been the fuel-wood department. This department fells and removes trees for parks, cemeteries, real-estate firms, and farmers in exchange for the wood (fig. 6). This is hauled to the Exchange lot where it is cut up into firewood size and sold to the participants. The wood obtained in this way during 1940 was valued at $9,768.

One department of the Exchange makes new mattresses. This section was started in 1939 when an arrangement was made with the Federal Surplus Commodities Corporation. The latter furnishes cotton and ticking and the Exchange provides labor, equipment, and working space. Half of the product goes to the Public Assistance

FIGURE 4.—Vegetables from the Exchange's 35-acre farm.

Division of the District of Columbia, for needy families, and the other half is retained by the Exchange. The department produces an average of 50 mattresses per month. In 1940 this department also began making pillows. All of the equipment in this division except the picker-and-filler machine was made by the Exchange carpenters.

All of the scrip and forms used in the activities of the Exchange, as well as its annual and other reports and the participants' paper "Self-Helper," are printed in the printing shop.

### SERVICE DEPARTMENTS

One of the prime purposes of the Exchange is to assist the members to attain a neat, well-groomed appearance. This aids not only in raising their morale, but also in obtaining employment. To this end

the Exchange operates three barber shops (two for whites and one for colored) and two beauty shops (one for whites and one for colored). These are under the direction of licensed operators who give instruction in the various processes to their helpers. (See fig. 7.) Shoe shines are also obtainable in either building.

One of the earliest and most important activities of the Exchange was the operation of a cafeteria. There is now one in each building. Toast and coffee are served in the morning, and a full meal is served at noon and at 4 p. m. Noon and evening meals cost 1 piece of scrip each; breakfast costs one-third of a scrip. The food is prepared at the branch building and the supply for the main building is transported

FIGURE 5.—Icing cakes in the bakery of the Exchange.

there in steam-jacketed kettles. The workers here receive training in cooking, serving, and general kitchen work. An average of 500 meals is served each day, Monday through Friday.

The laundry department handles the laundry work of the kitchen and cafeterias, the bakery, barber and beauty shops, and rooming house, besides doing a certain amount of personal laundry work for the participants.

Transportation of salvage commodities and of food for the cafeterias is provided by the 6 trucks operated by the Exchange. These trucks also carry to and from work some 60 participants who live too far away to walk. In addition, they move the furniture of participants who make a change of residence. All these services are paid for in scrip.

The inspection department is responsible for sterilizing all garments before their distribution to the workrooms. It also inspects all of the finished products for quality of workmanship. No article can be offered for sale until it has passed this inspection.

With the exception of shoes and furniture, which are sold separately, all of the articles offered for sale are displayed in the two stores run by the Exchange. Each article bears its price, in terms of pieces of scrip (each piece representing 1 hour's work). These stores, where only participants may trade, are fitted with counters, showcases, and cabinets donated by a local department store.

On the day of the visit by the Bureau's representative a sale of renovated furniture was to be held. A great variety of articles was ready,

FIGURE 6.—Unloading logs for cutting into firewood at the Exchange.

including a davenport and several overstuffed chairs, a rattan chair, an antique damask-upholstered armless rocker that was almost a museum piece, numbers of kitchen and dining-room chairs, a perambulator, several tables, a variety of cabinets, and small chests of drawers.

### SELF-HELP HOUSE

Self-Help House is the newest activity of the Exchange. It meets a long-felt need.

This home for single white participants was undertaken after a survey among the participants showed that the need for such shelter

was among this group. To meet this need the Exchange in 1940 rented a house which had previously been used as a children's home. It was admirably suited for the new purpose, having light attractive rooms and a 2-story ell running back 94 feet. The first floor was utilized to provide a large living room, dining room, and kitchen. The second floor contained a large dormitory and a number of smaller rooms large enough to accommodate 2 to 4 persons each. Altogether the building provided quarters for 47 men. (Fig. 8.)

Having stood vacant for some time, the house was in poor condition. It was thoroughly renovated by the Exchange members, floors being refinished, walls cleaned or painted, and all permanent equipment thoroughly cleaned. The materials for this, as well as most of the

FIGURE 7.—The beauty shop furnishes training as well as self-improvement.

furnishings, came from salvage or other donations by the community. An enormous gray-green broadloom rug, donated to the organization, was cut into smaller rugs for the two parlors and the office. Curtains for all of the rooms were made from some donated by a local merchant and one of the hotels. Bedroom rugs, bed linen, towels, mattresses and pillows were made at the Exchange.

When the house was opened, in November 1940, 10 men were admitted to residence. By the end of the first month 37 more had been accepted, filling the house to capacity. Since that time the house has been full continuously and there has been a waiting list.

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Applications for admission are handled by a committee of 5 participants who meet with the personnel director and the house manager and examine each case. Persons are admitted only if they are of good moral character and not addicted to drink. Preference is given to those whom, it is thought, residence at the home will help to rehabilitate.

The roomers do all of the housework and cleaning, make their own beds, do their own washing, and care for the yard. A gardening proj-

FIGURE 8.—Dormitory at Self-Help House, maintained for single white men.

ect is planned in the large back yard which had previously been used as a children's playground.

Experience in all of these activities will be helpful to the men in obtaining employment.

When a resident obtains a paying job he is on notice to vacate as soon as he receives his first pay check, and thus make way for another man who is homeless and needy. There is therefore a considerable turn-over among the residents.

The manager stated that in the evenings the large living room is crowded. Few of the men go out; they prefer to read the magazines piled upon the long table, browse among the books in the library, play cards, or visit with the others.

At the time of the agent's visit, the place was immaculate downstairs; upstairs the beds were all neatly made and a resident was going over the floors with a vacuum cleaner. The lawn was freshly cut, new shrubs had been set out, and the hedge had just been trimmed.

### EMPLOYMENT AND TRAINING ACTIVITIES

Each one of the projects of the Exchange furnishes not only employment but vocational training.

Thus in the group of bakery employees there is a head baker (trained by the Exchange) who has an average of 5 assistants; the cafeterias and kitchens employ an average of 22 persons; the upholstery shop has kept as many as 8 persons busy; some 200 women work each month in the sewing rooms; about 40 men haul and cut fuel wood; and a farmer and 12 helpers live and work on the farm. Varying numbers are utilized in the other departments, so that during 1940 a monthly average of 575 persons was given work on Exchange projects.

All work is under the supervision of trained people who, in turn, instruct the workers under them. In even the least-skilled jobs the workers learn the most efficient ways of performing their work.

Although the Exchange is not an employment agency, it is always on the lookout for jobs in private employment for its members, and many of the activities have led directly to such jobs.

Table 2 shows by months, the number of persons for whom cash jobs have been obtained through the Exchange.[1] As there indicated, the number of such jobs has increased year by year and almost month by month. Altogether, during the 3½ years' operation, cash employment has been obtained for 3,009 persons, and of these jobs, 276 were permanent positions.

The largest proportion of jobs is in domestic service. Others include carpentry work, painting, electrical work, locksmith work, gardening or farm labor, cabinetmaking, general labor, and truck driving.

Some jobs are unusual. One participant who was originally sent out as a truck driver is now operating a Diesel shovel at $2 per hour. The estimated length of the work will be 2 years. Another participant was sent to work temporarily as a night telegraph operator relieving regular employees on vacation. He is now assigned to a permanent position with the Federal Government. Six men are working regularly as orderlies at two of the local hospitals, and one woman has been placed as a practical nurse.

Because of the recent increased opportunities in private employment, the number of participants obtaining cash employment has greatly increased. Indeed, recently the Exchange has had difficulty in obtaining sufficient help on certain kinds of work—such as upholstering and furniture repair—to keep the various departments going and meet the participants' demands for products.

[1] This does not include employment obtained through the participant's own initiative.

TABLE 2.—*Number of Cash Jobs Obtained for Participants in Washington (D. C.) Self-Help Exchange, by Months, September [1] 1937 to December 1940*

| Month | 1937 | 1938 | 1939 | 1940 |
|---|---|---|---|---|
| January | | 6 | 19 | 43 |
| February | | 4 | 24 | 37 |
| March | | 26 | 63 | 98 |
| April | | 18 | 67 | 149 |
| May | | 14 | 132 | 213 |
| June | | 29 | 45 | 129 |
| July | | 24 | 53 | 129 |
| August | | 27 | 70 | 131 |
| September | 10 | 47 | 106 | 204 |
| October | 11 | 67 | 153 | 298 |
| November | 5 | 41 | 67 | 169 |
| December | 3 | 52 | 82 | 144 |
| Total | 29 | 355 | 881 | 1,744 |

[1] No such jobs were obtained during the first 2 months' operations—i. e., in July and August 1937.

## *Members and Membership Participation*

The participants are about evenly divided as to sex. The ages of those who took part in the activities of the Exchange in 1940 ranged from 16 to 86; the average for the whole group was about 39 years.

About 41 percent were Negroes and 59 percent were white.

The training and experience of these persons vary widely. Among the 1940 members there were a retired minister, a former driver for a circus, a graduate engineer, and a dietitian. A great variety of skilled trades was also included, but the largest proportion of the workers has always come from the unskilled.

Of 198 persons accepted into the Exchange during the first two months of 1941, 55.0 percent had had a grade-school education, 35.9 percent had had 1 to 4 years of high school, and 9.1 percent had had 1 or more years at college.

The activities of the Exchange are managed by a board of directors who are not participants nor chosen by them.

The participants meet twice a month to enact rules of conduct and of participation and for social and recreational purposes. This assembly elects a council of 10, representative of the various branches of the Exchange. The council enforces the assembly's regulations, acts in an advisory capacity to the executive officers, and in general represents the interests of the participants.

Among the regulations adopted by the assembly in 1940 were those governing the sale of men's suits and overcoats. These garments are of particular importance in the economy of Exchange participants, as a neat well-fitting suit may enable the possessor to land a cash job. There is never a sufficient supply to go around, however, and therefore the assembly voted, regarding them, that (1) a participant should not be allowed to purchase one unless it was his size or could be altered to fit him, (2) the participant would not be allowed to purchase another until all participants needing such garments have been

served, (3) suits and overcoats to be on sale only at a specified hour when all participants are free to look them over, and (4) a worker who has obtained a cash job shall be given preference.

The participants have established a welfare fund, composed of scrip donations by themselves, from which loans are made to needy members.

# SPENDING AND SAVINGS OF WAGE EARNERS AND CLERICAL WORKERS IN LARGE CITIES[1]

PREVIOUS articles in the Monthly Labor Review have presented data on the incomes, spending, and saving of a cross section of families of wage earners and clerical workers in large cities in 1934–36.[2] These findings did not, however, indicate the extent of the purchasing power of the Nation's wage-earning families in the aggregate. The combined spending of all wage earners and lower-salaried clerical workers forms an impressive mass market for the products of industry, agriculture, and trade. It is an important segment of total national spending. An examination of the data from the standpoint of their importance in the total national economy is presented in this article.

Although the present study was not a survey of all wage earners and clerical workers, it provides the basis for estimates of the incomes and spending of a substantial proportion of the total. It is estimated that there are 5,500,000 families in the total group to which the sample data for 1934–36 may be considered to apply. That number of families in 1935–36 lived in cities with over 50,000 population and met the other principal requirements for inclusion of sample families in the survey.[3] Accordingly, it may be said that these 5,500,000 families found themselves in substantially the same situation, as regards income and spending, as did the sample of families surveyed.

These families comprised almost half of the Nation's total of non-relief families primarily dependent for support upon wage earners and clerical workers. They constituted in 1935–36 about one-fifth (19 percent) of all families of 2 or more persons in the United States. Their aggregate income amounted to somewhat less than a fifth (18 percent) of the total family income of the country as estimated by the National Resources Committee for the years 1935–36. The fact that this represented about the same proportion of family population and of income indicates that this group represents neither extreme poverty nor extreme wealth. Only 8 percent of them fell within the income limits defined by the National Resources Committee for the

[1] Prepared by Alice C. Hanson and Jerome Cornfield of the Cost of Living Division, Bureau of Labor Statistics.

[2] This is the tenth and final article in a series prepared by the Bureau's Cost of Living Division, presenting a summary of data collected in the Study of Money Disbursements of Employed Wage Earners and Clerical Workers in 1934–36 for 42 Cities. A total of 14,469 white and Negro families are covered by this report. No families with incomes below $500 or which had received any relief during the year were included in the investigation. See Bureau of Labor Statistics Bulls. Nos. 636, 637, 639 to 641, and articles in the Monthly Labor Review for December 1939 and monthly from January through August 1940. The final report will be published as Bull. No. 638.

[3] That is, they were primarily dependent for their support on the earnings of wage earners and clerical workers, had not received relief, had incomes of at least $500 and had no clerical worker with earnings over $2,000. The figure of 5,500,000 is based upon the National Resources Committee report, Consumer Incomes in the United States, Washington, 1938, and upon special tabulations by the Bureau of Labor Statistics of the source data from the Study of Consumer Purchases.

"lower one-third" of the Nation's families, 50 percent fell within the middle third, and 42 percent within the upper third of the Nation's families.

These 5,500,000 families had aggregate annual incomes in 1934–36 of $8,400,000,000. This figure is almost a fifth of the total national income of families of 2 or more persons and 14 percent of the total national consumer income.

## *Basis of Estimates*

The estimated totals of income and expenditure for 5,500,000 families in 1934–36 are based upon data provided by the sample of families visited in the study of expenditures. This sample was carefully chosen to represent a cross section of the families of the employed wage earners and lower-salaried clerical workers in large cities. Hence, it is reasonable to assume that the income distribution in 1934–36 of all the 5,500,000 families was about the same as for the sample group. On this assumption, it is estimated that the total income of these families in 12 months of 1934–36 was approximately $8,400,000,000 (table 1).

TABLE 1.—*Estimated Family Income of Wage Earners and Clerical Workers in Large Cities*

[5,500,000 families; 12 months during the period 1934–36]

| Annual net family income | Families | | Aggregate income | |
|---|---|---|---|---|
| | Number | Percent of total | Amount (in thousands) | Percent of total |
| All families | 5,500,000 | 100.0 | $8,369,200 | 100.0 |
| $500–$600 | 44,000 | .8 | 24,300 | .3 |
| $600–$900 | 462,000 | 8.4 | 359,000 | 4.3 |
| $900–$1,200 | 1,122,000 | 20.4 | 1,194,900 | 14.3 |
| $1,200–$1,500 | 1,309,000 | 23.8 | 1,769,700 | 21.1 |
| $1,500–$1,800 | 1,116,500 | 20.3 | 1,832,200 | 21.9 |
| $1,800–$2,100 | 830,500 | 15.1 | 1,608,700 | 19.2 |
| $2,100–$2,400 | 308,000 | 5.6 | 639,600 | 8.3 |
| $2,400–$2,700 | 148,500 | 2.7 | 375,600 | 4.5 |
| $2,700–$3,000 | 71,500 | 1.3 | 206,000 | 2.5 |
| $3,000 and over | 88,000 | 1.6 | 305,200 | 3.6 |

## *Distribution of Expenditures in 1934–36*

In 1934–36, it is estimated that the aggregate spending of these 5,500,000 families was $8,339,400,000. (For discussion of their savings see p. 54.) The estimated division of these expenditures by main categories is shown in table 2.

Food expenditures alone were almost $3,000,000,000, while housing, together with fuel, light, and refrigeration accounted for slightly over $2,000,000,000. Automobile purchase took $193,000,000 and automobile operation and maintenance another $287,000,000. Recreation amounted to $452,000,000, while clothing expenditures reached a

total of $892,000,000. Expenses for medical care totaled $326,000,000 and those for personal care $166,000,000.

The sheer size of these figures indicates the importance of the combined pay envelopes of the millions of city workers who form a part of America's mass markets for the products of agriculture, industry, and trade.

TABLE 2.—*Distribution of Estimated Aggregate Expenditures of Wage Earners and Clerical Workers in Large Cities*

[5,500,000 families; 12 months during period 1934–36]

| Item | Amount (in thousands) | Percent of total | Item | Amount (in thousands) | Percent of total |
|---|---|---|---|---|---|
| All items | $8,339,400 | 100.0 | Other transportation | $209,800 | 2.5 |
| | | | Personal care | 166,200 | 2.0 |
| Food | 2,792,000 | 33.5 | Medical care | 326,200 | 3.9 |
| Clothing | 891,700 | 10.7 | Recreation | 452,500 | 5.4 |
| Housing | 1,423,800 | 17.1 | Formal education | 39,300 | .5 |
| Fuel, light, and refrigeration | 595,300 | 7.2 | Vocation | 34,100 | .4 |
| Other household operation | 320,300 | 3.8 | Community welfare | 105,600 | 1.3 |
| Furnishings and equipment | 329,100 | 3.9 | Gifts | 134,200 | 1.6 |
| Automobiles: | | | Other items | 38,300 | .5 |
| Purchase | 193,500 | 2.3 | | | |
| Operation and maintenance | 287,500 | 3.4 | | | |

## COMPARISON WITH TOTALS FOR THE NATION

The magnitude of these expenditures appears more clearly when they are placed in perspective. National estimates of consumer expenditures are available for 1935–36, against which may be set the expenditures of the segment of the families of urban wage earners and clerical workers who lived in large cities for 12 months during the period 1934–36. The expenditures of this group of families in 1934–36 constituted almost one-fourth of total national expenditures for transportation other than by automobile, and almost the same proportion of national outlay for furnishings and equipment. They were about a sixth of the national totals for clothing, food, and personal care and more than a seventh of the totals for housing, medical care, and recreation. The comparisons are shown in the accompanying statement:

| | *Percent* |
|---|---|
| Food | 16.5 |
| Clothing | 16.9 |
| Housing | 15.0 |
| Household operation | 11.6 |
| Furnishings and equipment | 23.1 |
| Auto purchase, maintenance, and operation | 12.7 |
| Other transportation | 23.8 |
| Personal care | 16.0 |
| Medical care | 14.7 |
| Recreation | 14.3 |
| Education | 7.7 |
| Other | 9.3 |

## *Expenditures for Automobiles*

One commodity, automobiles, has been selected for illustrating in greater detail the relation of the spending of this group of 5,500,000 families to that of the Nation as a whole.

A consideration of the relation in 1934–36 of the automobile purchases of these families to total automobile sales shows that this group purchased an average of 153,600 new automobiles a year in the survey period, or about 5 percent of total new cars sold (table 3).

The importance of these families in the automobile market is not measured merely by the number of new automobiles they purchased, however. For every new car they purchased in 1 year, they bought three used cars, the total number being 498,700 per year. It has been estimated that 65 percent of new cars sold in the period 1934–36 were purchased as replacements for old cars.[4] Such replacement sales are possible only if a used-car market of substantial size exists. The exact number of new-car purchases made possible by sales of almost 500,000 used cars to urban wage earners and clerical workers cannot be accurately estimated. It may be conservatively estimated, however, that at least half the used-car purchases played a part in the purchase of additional new cars by persons not included in the group under consideration.

TABLE 3.—*Estimated Aggregate Purchases of Automobiles by Wage Earners and Clerical Workers in Large Cities*

[5,500,000 families; 12 months during the period 1934–36]

| Income | Number of families purchasing— | | | Aggregate expenditure for— | | |
|---|---|---|---|---|---|---|
| | New cars | Used cars | Either | New cars | Used cars | Total |
| Total | 153,600 | 498,700 | 652,300 | $81,180,330 | $112,409,935 | $193,590,265 |
| $600–$900 | 0 | 19,400 | 19,400 | 0 | 2,037,420 | 2,037,420 |
| $900–$1,200 | 0 | 59,500 | 59,500 | 0 | 10,748,760 | 10,748,760 |
| $1,200–$1,500 | 32,700 | 94,200 | 126,900 | 9,333,170 | 21,402,150 | 30,735,320 |
| $1,500–$1,800 | 33,500 | 128,400 | 161,900 | 17,663,030 | 29,978,025 | 47,641,055 |
| $1,800–$2,100 | 44,800 | 117,900 | 162,700 | 27,614,125 | 28,045,985 | 55,660,110 |
| $2,100–$2,400 | 20,900 | 43,100 | 64,000 | 12,741,960 | 11,380,600 | 24,122,560 |
| $2,400–$2,700 | 10,700 | 19,300 | 30,000 | 6,747,840 | 4,976,235 | 11,724,075 |
| $2,700 and over | 11,000 | 16,900 | 27,900 | 7,080,205 | 3,840,760 | 10,920,965 |

It appears that purchases of used cars by this group resulted in the sale of at least 400,000 new cars per year in this 1934–36 period. Although used cars are not ordinarily considered a vital factor in the sale of new cars, it is apparent from these estimates that their purchase has a considerable effect on the new-car market.

[4] Roos, C. F. and von Szeliski, Victor: Factors Governing Changes in Domestic Automobile Demand, in The Dynamics of Automobile Demand, pp. 54–55. New York, 1939.

### THE EFFECT OF INCOME ON AUTOMOBILE PURCHASES

The effect of changes in income on purchases of new cars can be estimated from the spending patterns of families of different incomes at the time of the study. Table 4 shows the average expenditures in 1 year by this group of families at different income levels separately for new and for used cars. Also shown is the percent of all families at each income level purchasing either a new or a used car during 1 year.

The relation of income to new-car purchases among this group of city families is immediately apparent from the table. At incomes below $1,200 no new cars were bought. From that point onward, as income increases the frequency of purchase increases rapidly, so that at the three highest income levels 7 percent of the families purchased a new car during the year. The average expenditure per family increased from a little more than $7 to about $45, a sixfold increase in car purchase with only a doubling in income.

TABLE 4.—*Estimated Average Purchases of Automobiles by Wage Earners and Clerical Workers in Large Cities*

[5,500,000 families; 12 months during the period 1934–36]

| Income class | New cars | | | Used cars | | | All cars, average expenditure per family [1] |
|---|---|---|---|---|---|---|---|
| | Percent purchasing | Average expenditure per family [1] | Average expenditure per family purchasing [1] | Percent purchasing | Average expenditure per family [1] | Average expenditure per family purchasing [1] | |
| All families | 2.9 | $15.32 | $528.28 | 9.3 | $20.96 | $227.83 | $36.28 |
| $600–$900 | 0 | 0 | 0 | 4.2 | 4.41 | 105.96 | 4.41 |
| $900–$1,200 | 0 | 0 | 0 | 5.3 | 9.58 | 181.23 | 9.58 |
| $1,200–$1,500 | 2.5 | 7.13 | 283.09 | 7.2 | 16.35 | 227.90 | 23.48 |
| $1,500–$1,800 | 3.0 | 15.82 | 535.41 | 11.5 | 26.85 | 232.70 | 42.67 |
| $1,800–$2,100 | 5.4 | 33.25 | 618.13 | 14.2 | 33.77 | 237.63 | 67.02 |
| $2,100–$2,400 | 6.8 | 41.37 | 611.53 | 14.0 | 36.95 | 264.13 | 78.32 |
| $2,400–$2,700 | 7.2 | 45.44 | 628.77 | 13.0 | 33.51 | 258.35 | 79.95 |
| $2,700 and over | 6.9 | 44.39 | 643.10 | 10.6 | 24.08 | 227.95 | 68.47 |

[1] Net expenditure; i. e., gross purchase price minus trade-in allowance.

Used-car purchase was much more frequent among families in this group than new-car purchase. Even at the lowest income levels, 4 percent of the families purchased used cars. Frequency of used-car purchase increased with income but not so rapidly as new-car purchase. For the three highest income levels the frequency of used-car purchases declined, clearly reflecting a shift from used to new cars.

## *Volume of Savings*

There remains for consideration the volume of saving of these families of wage earners and clerical workers, as contrasted with their

purchases of consumer goods and services for current family living. Since savings, for the economy as a whole, constitute a deferral of consumption, the figures on this subject are of special interest.

The data on savings of the sample of families surveyed in 1934–36 were not obtained simply by subtracting expenditures from income. The families were asked to report in detail any increases or decreases for the year in investments or debts, that is, the net extent of previous obligations paid off, new obligations incurred, withdrawal from reserves or addition to reserves.[5] (See Savings of Wage Earners and Clerical Workers in Monthly Labor Review, July 1940.)

Using the reported figures on savings as such from the families surveyed in 1934–36 as the basis for the estimates, the data shown in table 5 were obtained.

TABLE 5.—*Estimated Aggregate Savings of Wage Earners and Clerical Workers in Large Cities*

[5,500,000 families; 12 months during the period 1934—36]

| Income class | Aggregate net change in assets and liabilities | |
|---|---|---|
| | Amount (in thousands) | Percent of aggregate income |
| All families | +$63,000 | +0.8 |
| $500–$600 | −3,500 | −14.4 |
| $600–$900 | −27,700 | −7.7 |
| $900–$1,200 | −41,800 | −3.5 |
| $1,200–$1,500 | −17,700 | −1.0 |
| $1,500–$1,800 | +21,000 | +1.1 |
| $1,800–$2,100 | +56,900 | +3.5 |
| $2,100–$2,400 | +28,900 | +4.5 |
| $2,400–$2,700 | +15,200 | +4.0 |
| $2,700–$3,000 | +11,400 | +5.5 |
| $3,000 and over | +20,300 | +6.7 |

The 3,000,000 families with incomes below $1,500 spent aggregate amounts in excess of their aggregate incomes to the extent of nearly $91,000,000. Their aggregate net use of credit or of previous savings or other reserves—in other words, their aggregate deficit—was thus over 2½ percent of their aggregate income. The 2,500,000 families with incomes above $1,500, on the other hand, spent less than their incomes and had an aggregate net saving of $153,700,000, or not quite 3 percent of their aggregate income. The aggregate savings of $63,000,000 for the entire group of 5,500,000 families represented eight-tenths of 1 percent of their aggregate income and about 1 percent of the aggre-

[1] That such net change in assets and liabilities reported by a given family when added to expenditures, did not always exactly equal its income is entirely understandable from the difficulties of recalling in precise detail family expenditures over a year's period. The discrepancy, if any, constituted a small amount of the year's expenditures unaccounted for or a slight overestimate of expenditures. So long as this discrepancy was not greater than 5 percent of total income or expenditure in any individual case, the schedule was accepted for tabulation and the discrepancy treated as a balancing difference. The net balancing difference for all families surveyed was less than 1 percent.

gate national savings (estimated by the National Resources Committee at $5,978,000,000 for 1935–36).

## *The Situation in 1940*

Had the survey been made in 1940, a somewhat larger number of families would have met the requirements for inclusion in the study because of the improvement in the employment and relief situation as compared with the earlier period. Furthermore, the incomes of the families surveyed would undoubtedly have been higher in 1940. It is not possible to estimate just how many additional families would have been added to the 5,500,000 if the survey had been made in 1940; nor is it possible to judge exactly how many of the original number would have been removed by death or other changes in family composition or by increase in earnings of clerical members of the family beyond the $2,000 limit. It is, however, possible to estimate with a fair degree of accuracy the extent of the increase in incomes which the same or similarly situated 5,500,000 families received from 1934–36 to 1940. An estimate can also be made of the disposition made by these families of these increased incomes.[6] The estimates for 1940 are calculated from the figures obtained in 1934–36 with adjustments for economic changes which have taken place since that time.

### INCOME IN 1940

It is estimated that the annual incomes of a similarly situated group of 5,500,000 families in 1940 aggregated $10,000,000,000, an increase of more than $1,500,000,000 over their annual incomes in 1934–36.

Total wage and salary payments in the United States increased about 25 percent from the date of the study to 1940.[7] If it is assumed that the incomes of the 5,500,000 families increased by the same percentage an estimate is obtained of $10,600,000 for their aggregate income in 1940. This figure represents the probable outside limit of the correct estimate. It should be reduced somewhat, however, to take account of the fact that some of this increase in wage and salary payments undoubtedly reflects increase in employment of families not originally eligible for inclusion in the study because of relief status, low employment, or earnings and hence not included within the 5,500,000. Total nonagricultural employment increased about 10 percent over the same period.[8] If the extreme assumption is made that none of this increase in employment went to persons in the 5,500,-

[6] Alternatively, the estimates presented in the remainder of this article may be thought of as relating to the income and expenditures which the original 5,500,000 families would have enjoyed if conditions of 1940 had prevailed in 1934–36.

[7] According to national income estimates of the U. S. Department of Commerce.

[8] According to the estimates of the Bureau of Labor Statistics.

000 families, but an appropriate increase in their wage rates is allowed for, undoubtedly the extent of increase in their income is understated. Such an assumption gives an estimate of $9,500,000,000, which represents the lower reasonable limit of a correct estimate.[9] It can be stated with some assurance that the true figure for the 1940 income of the 5,500,000 families lies somewhere between $9,500,000,000 and $10,600,000,000. It is recognized that estimates such as these under discussion can at best be only approximations. For convenience, therefore, an intermediate figure of an even $10,000,000,000 has been used as the estimate of the aggregate income of 5,500,000 families in 1940.

The estimated distribution of the $10,000,000,000 among the 5,500,000 families in 1940 is shown in table 6. This distribution has been computed on the assumption that the relative positions of the 5,500,000 families remained the same in 1940 as in 1934–36; i. e., that the degree of inequality in the distribution of their income was the same in both periods. Corresponding figures for 1934–36 were shown in table 1.

TABLE 6.—*Estimated Family Income of Wage Earners and Clerical Workers in Large Cities, 1940*

[5,500,000 families]

| Annual net family income | Families | | Aggregate income | |
|---|---|---|---|---|
| | Number | Percent of total | Amount (in thousands) | Percent of total |
| All families | 5,500,000 | 100.0 | $10,000,000 | 100.0 |
| $500–$600 | 1,000 | | | |
| $600–$900 | 212,000 | 3.9 | 166,300 | 1.7 |
| $900–$1,200 | 633,000 | 11.5 | 675,200 | 6.8 |
| $1,200–$1,500 | 1,020,000 | 18.6 | 1,381,700 | 13.8 |
| $1,500–$1,800 | 1,098,000 | 20.0 | 1,805,100 | 18.0 |
| $1,800–$2,100 | 946,000 | 17.3 | 1,836,300 | 18.4 |
| $2,100–$2,400 | 766,000 | 13.8 | 1,711,500 | 17.1 |
| $2,400–$2,700 | 414,000 | 7.5 | 1,041,900 | 10.4 |
| $2,700–$3,000 | 171,000 | 3.1 | 492,700 | 4.9 |
| $3,000 and over | 239,000 | 4.3 | 889,300 | 8.9 |

*Increase in real income.*—The cost of living for this group of families had risen 2.6 percent from 1934–36 to 1940, and the increase in their real income has not therefore been so great as in their money income over this period. Of the $1,631,000,000 increase in money income $218,000,000 was required to compensate for increased living costs and the remainder, $1,413,000,000, represented the amount of money available for the purchase of additional goods and services.

### DISTRIBUTION OF EXPENDITURES, 1940

The estimated current expenditures of these 5,500,000 families in 1940 aggregated $9,736,000,000. Their expenditures for food alone,

[9] The estimate of $9,500,000,000 is obtained by the following calculation: $\frac{125}{110} \times 8.4$ billion $= 9.5$ billion.

it is estimated, accounted for $3,181,000,000 (table 7). Housing expense probably totaled about $1,568,000,000, and an additional $642,000,000 was estimated as spent for fuel, light, and refrigeration. The third largest category of expenditure was for clothing, which it is estimated, took $1,113,000,000.

TABLE 7.—*Distribution of Estimated Aggregate Expenditures of Wage Earners and Clerical Workers in Large Cities, 1940*

[5,500,000 families]

| Item | Amount (in thousands) | Percent of total | Item | Amount (in thousands) | Percent of total |
|---|---|---|---|---|---|
| All items | $9,735,900 | 100.0 | Other transportation | $249,500 | 2.6 |
| | | | Personal care | 196,300 | 2.0 |
| Food | 3,181,400 | 32.7 | Medical care | 380,100 | 3.9 |
| Clothing | 1,113,100 | 11.5 | Recreation | 557,100 | 5.7 |
| Housing | 1,568,200 | 16.1 | Formal education | 52,900 | .5 |
| Fuel, light, and refrigeration | 641,500 | 6.6 | Vocation | 46,800 | .5 |
| Other household operation | 389,400 | 4.0 | Community welfare | 127,000 | 1.3 |
| Furnishings and equipment | 386,100 | 4.0 | Gifts | 179,300 | 1.8 |
| Automobiles: | | | Other items | 49,800 | .5 |
| Purchase | 262,400 | 2.7 | | | |
| Operation and maintenance | 355,000 | 3.6 | | | |

Recreation usually claims the next largest part of total expenditures. Of the income estimated for 1940, $557,000,000 would go for the purchase of reading matter, tobacco, admissions to movies, spectator sports, and other entertainments, equipment for games, cameras, and other hobbies; $389,000,000 for household operation; and $386,000,000 for housefurnishings and equipment. Medical-care expenditures are estimated to have aggregated $380,000,000 for the year.

The cost of operation and maintenance of automobiles is estimated at $355,000,000 for these families in 1940. The figure covers chiefly gasoline, oil, tires, and tubes. Purchase of automobiles, it is estimated, took approximately $262,000,000 (for further discussion of automobile purchases in 1940, see p. 62). This figure was greater than that for total costs for transportation by all means other than the family car. The aggregate was $250,000,000 for this purpose.

It is estimated that $196,000,000 was spent for personal care. Gifts and contributions to relatives or others outside the economic family took $179,000,000; direct income, personal property and poll taxes, contributions to religious organizations, community chests, and other contributions to the community welfare took another $127,000,000; direct expense for formal education amounted to $53,000,000; vocational expenses, largely union dues, to $47,000,000; while other miscellaneous expenditures accounted for $50,000,000.

If spending continues to follow the same general pattern at various income levels in 1940 as in 1934–36, it may be estimated that with an increase between the two periods of $1,600,000,000 in money income received by this group of families, there was an increase in total

current spending of about $1,400,000,000. Thus, a 19-percent increase in income was accompanied by only about a 17-percent increase in spending (for a discussion of increase in saving see p. 62).

This increase in their family expenditures was not evenly divided among the various categories of consumption (table 8). The largest absolute increase, estimated at over a third of a billion dollars, went for food. Clothing took the second largest increase, an estimated $221,000,000. Large shares of the increased spending also went for housing, recreation, automobile operation and maintenance, household operation, furnishings and equipment, automobile purchase, and medical care. The smallest absolute increases went for vocational expense, formal education, and miscellaneous expenditure.

With an average income increase of 19 percent, and with many families moving into higher income brackets, expenditures for four spending categories showed increases of 30 percent or more. These were the expenses for which very little is left over after necessaries are taken care of on a limited budget—gifts, formal education, vocation, and miscellaneous expense. Spending categories which usually increase more as income goes up and which are estimated to have increased by 20 to 30 percent (more than proportionate to the increased income) were automobile purchase, operation and maintenance, clothing, recreation, and household operation (exclusive of fuel, light, and refrigeration). The least expansion was probably in fuel, light, and refrigeration and in housing expenditures. Expenditure for food though extremely large in absolute amount, no doubt showed the next least relative expansion.

TABLE 8.—*Distribution of Estimated Increase in Aggregate Expenditures of Wage Earners and Clerical Workers in Large Cities*

[5,500,000 families; 1940 compared with 1934–36]

| Item | Increase from 1934–36 to 1940 | | Increase as percent of expenditures in 1934–36 |
|---|---|---|---|
| | Amount (in thousands) | Percent distribution of the increase | |
| All items | $1,396,500 | 100.0 | 16.7 |
| Food | 389,400 | 27.9 | 13.9 |
| Clothing | 221,400 | 15.9 | 24.8 |
| Housing | 144,400 | 10.3 | 10.1 |
| Fuel, light, and refrigeration | 46,200 | 3.3 | 7.8 |
| Other household operation | 69,100 | 4.9 | 21.6 |
| Furnishings and equipment | 57,000 | 4.1 | 17.3 |
| Automobiles: | | | |
| Purchase | 68,900 | 4.9 | 35.6 |
| Operation and maintenance | 67,500 | 4.8 | 23.5 |
| Other transportation | 39,700 | 2.8 | 18.9 |
| Personal care | 30,100 | 2.2 | 18.1 |
| Medical care | 53,900 | 3.9 | 16.5 |
| Recreation | 104,600 | 7.5 | 23.1 |
| Formal education | 13,600 | 1.0 | 31.6 |
| Vocation | 12,700 | .9 | 37.2 |
| Community welfare | 21,400 | 1.5 | 20.3 |
| Gifts | 45,100 | 3.2 | 33.6 |
| Other items | 11,500 | .8 | 30.0 |

### BASIS OF ESTIMATES OF CHANGES ACCOMPANYING INCREASED INCOMES

The data presented in previous articles have shown the differences in the relative importance of purchases of goods of different types at certain income levels. It is important to bear in mind the fact that those figures at each income level represent the expenditures of different families at approximately the same period. They do not show the expenditures of the same family as it rose or fell in the income scale. Students have long recognized the importance of data on the disbursements of the same families over a consecutive period, but the expense in time and energy of such a study and the difficulties in finding families which would be representative in other ways, year after year, have prevented its being made.

For the purpose of the present estimates of changes in spending and saving with changes in income, it has been assumed that families moving into a higher income bracket would, on the average, distribute their purchases as did the families who actually had the higher incomes at the period of the earlier survey, thus assuming that no marked change in consumption habits had occurred in the interval.[10] This assumption is likely to be less true to fact during a short period when incomes increase suddenly, but probably closely approaches the truth when there is a period of time for adjustment to the new spending level. The adjustment period varies for each commodity, probably being longest for housing.

In estimating the changes in expenditures from 1934–36 to 1940, it was assumed that price changes over the period had not been great enough to make a significant difference in family spending patterns for these major categories of consumer goods and services. The Bureau's index of cost of goods purchased by wage earners and lower-salaried clerical workers had shown an increase of 2.6 percent between the two periods. There were, however, considerable differences in the price movements of the different categories most important in the family budget. Food costs were down 2 percent as compared with their level in 1934–36, and the fuel, electricity, and ice group was down 1 percent. Miscellaneous items had increased by 3 percent, clothing by 5 percent, and housefurnishings by 6 percent over the same time interval. The greatest change of all was in rents, which had shown a 10-percent increase since the period of the investigation, when rents were still depressed because of the drop in income during the period of the discussion.

In the absence of a new field survey which would show the actual distribution of expenditures by families presented with choices under

[10] The few studies which have been made of changes in total purchases with changes in aggregate income over a period of time confirm estimates made on the foregoing assumption. See National Resources Committee, Patterns of Resource Use, Washington, 1939; and Factors Governing Changes in Domestic Automobile Demand, in The Dynamics of Automobile Demand, by C. F. Roos and Victor von Szeliski, New York, 1939.

somewhat altered price relationships, it was assumed that the average distribution of family expenditures among the major consumption categories at given income levels had not changed greatly between 1934–36 and 1940.

The procedure in making the expenditure estimates for 1940 was to work from the altered income distribution. Families at a given money income level were assumed to have made the same average money expenditures for a given category of consumption in 1940 as did the families at that money income level in 1934–36. In effect this practice assumed that with changes in price, quantities taken will be altered in such a way that expenditures will remain the same. It is recognized that this assumption does not entirely conform with actuality. It seems preferable, however, to the assumption that quantity taken would remain the same regardless of price. The latter assumption has been discarded, and with it the procedure of adjusting the average expenditures at each income level in 1934–36 by an amount equal to the index change in cost, before multiplying by the number of families estimated to be at that income level in 1940. The assumption made is borne out by observations of field agents in 1934–36 with respect to food expenditures. This was a period of rising food prices, but housewives frequently reported that a given sum, such as $10 per week, was set aside for groceries, and this amount was spent regardless of shifts in individual food prices over the year covered by the schedule.

The rise of 17 percent in housing expenditures estimated as the result of the higher incomes in 1940 more than meets the 10-percent increase in rental charges which occurred between 1934–36 and 1940.

About a third of the families in the group were home owners. Since the decline in the costs of home owners was much less than the decline in costs for renters from 1929 to 1933, it seems unlikely that the advance in the fixed charges of home owners or their maintenance costs was as great as the advance in rents between 1934–36 and 1940. The estimate of housing expenditures in 1940 does not, however, allow for as much improvement in the amount of housing space, and in the quality of the housing facilities of the group, as would be provided for in the quality and quantity of food or clothing estimated as purchased. It suggests, nevertheless, that better housing would have been found if the families surveyed had been visited in 1940 rather than in 1934–36.

In the absence of a new field survey there is no positive basis for estimating to what extent, in view of rising rents, families whose incomes had increased would have purchased homes or moved to better quarters instead of increasing savings, or expenditures for other types of goods and services to the extent estimated. Conse-

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quently, a 17-percent increase in housing expenditure should be regarded as a minimum.

### AUTOMOBILE PURCHASES IN 1940

At the same rate of spending for cars as prevailed in 1934–36, by 1940 the number of new cars purchased by these families would have been about 243,000, an increase of more than 80,000 cars or 50 percent more than their purchases in 1934–36. Total new-car sales for all families in the country had increased by about 700,000 from 1934–36 to 1940, an increase of a little more than 25 percent. Although this group had accounted for only 5 percent of the sales of new cars in 1934–36, these estimates indicate that they probably accounted for well over 10 percent of the additional 700,000 cars sold in 1940.

By 1940 their used-car purchases, estimated in the same way, had probably increased to approximately 629,000 cars, an increase of about 130,000 over 1934–36. Whereas their new-car purchases had increased by more than 50 percent, used-car purchases had increased only about 30 percent over this period.

This analysis indicates that these families of wage earners and clerical workers in large cities constitute a marginal group with respect to automobile purchases. The effect of income changes on their new-car purchases are much more pronounced than they are for the population at large. When incomes increase, their purchases of new cars increase much more sharply than do those of the country at large and, conversely, when incomes decrease their new-car purchases are much more sharply curtailed.[11]

### SAVINGS IN 1940

If the same pattern of saving at successive income levels had been followed by these families in 1940 as in 1934–36, with the turning point from average deficit to average surplus occurring at the same income level, the aggregate net savings of the group would have been $222,000,000 as shown in the accompanying statement. The estimates indicate that for this group savings are more than three times as great when incomes increase by one-fifth. The prime reason for this great increase in savings is the movement of families upward in the income scale, with a larger proportion in 1940 having incomes above $1,500, the point in the income scale at which the families surveyed in 1934–36 began to show a surplus. The estimates indicate further that 10 percent of the increased incomes of this urban group went into savings, and 90 percent into current expenditures.

[11] This corresponds to the experience of the industry from 1929 to 1932 when it found that automobile sales to wage earners declined much more markedly than for the population as a whole. See Behavior of the Automobile Industry in the Depression, by John W. Scoville, [Detroit ?], 1936, pp. 5–7.

The National Resources Committee, making estimates for a hypothetical situation resembling the actual increase in national income from 1934–36 to 1940, estimated that in the entire population 25 percent of the increase would be allotted to savings.

| | *Aggregate net change in assets and liabilities (in thousands)* |
|---|---|
| All families | +$223, 100 |
| $500–$600 | −100 |
| $600–$900 | −13, 100 |
| $900–$1,200 | −23, 400 |
| $1,200–$1,500 | −13, 300 |
| $1,500–$1,800 | +20, 900 |
| $1,800–$2,100 | +64, 300 |
| $2,100–$2,400 | +72, 000 |
| $2,400–$2,700 | +42, 600 |
| $2,700–$3,000 | +18, 000 |
| $3,000 and over | +55, 200 |

Within a given money-income class, the average savings per family are assumed to be the same at both periods. It seems likely that, with the increasing security of employment, families in 1940 had greater confidence than in 1934–36 in making future commitments. Data from trade sources indicate more than a 25-percent increase in the volume of installment sales from 1935 to 1940, and a liberalization in the terms of such sales. To the extent that the 5,500,000 families in 1940 were making new commitments of this sort, in excess of their paying off of similar obligations carried over from preceding years, the savings figures indicated in the preceding tabulation should be reduced.[12] On the other hand, there may have been other factors working in an opposite direction. The burden of contributions to unemployed relatives, which was substantial in 1934–36, had undoubtedly eased by 1940, with a consequent tendency to lower the average withdrawal from reserves of families at comparable income levels. In the absence of comprehensive family living surveys for years since 1936, no final statement on this point is possible.

## *Probable Future Changes in Expenditures*

The aggregate amount of the changes in spending resulting from the increased incomes of these 5,500,000 families since 1936 is of considerable importance. For the purpose of anticipating probable future demands, the relative importance and the direction of the esti-

[12] For the definition of savings used in this investigation see p. 55. Purchase of all durable goods except houses were treated as current family expenditures. Payments on principal of mortgage for purchase of a home were treated as savings. The lack of availability of data on different rates of depreciation for various types of durable goods made it impracticable to take account of their capital value. It is recognized that, to the individual, purchase of durable goods on the installment plan, may appear an investment. Without a complete accounting of his capital position, however, obligations due on such purchases must be considered a liability. They were so treated in the current investigation.

mates of change are of even more significance than the dollar amount. To the extent that no great changes occur in relative costs of various parts of the family budget, the shifts in consumption to be anticipated during the next few years as a result of wage payments growing out of the defense program will be similar to those estimated as having occurred between the years of the survey and 1940. Not only will the changes in consumption for these 5,500,000 families be likely to continue in the directions indicated if their incomes increase further, but the volume will be swelled by purchases made by other families formerly on relief, or having incomes below $500, whose members are being reabsorbed into the labor market.

Even if no material price changes occur, it still seems clear that food expenditures will continue to show the greatest absolute increases, thus benefiting the farmers. Clothing demands, purchases of automobiles, and recreational demands will increase considerably, as well as demands for furnishings and equipment, housing, and medical care.

The expenditure patterns presented in this report are based on the manner in which families of wage earners and clerical workers disposed of their incomes during 1934–36. These patterns have indicated a standard of comfort which far exceeds that of almost all other countries of the world, even though they show room for improvement when compared with generally accepted American standards. We have seen that 73 percent of these families spent enough for food to purchase a "minimum-cost adequate diet." According to analyses of the United States Bureau of Home Economics for a sample of the families surveyed, the diets actually consumed were rated good or fair (meeting in all respects what are now considered average minimum dietary requirements in the United States not only for calories and proteins but also for minerals and vitamins) among 40 to 60 percent of the families surveyed in different regions. The best figure (60 percent of the families with fair or good diets) was for white families in Pacific coast cities, and the worst (36 percent with good or fair diets) for Negro families in the South. Seventy-eight percent of families surveyed in 1934–36, a little over three out of four, had all of the housing facilities generally regarded as standard in modern American housing. On the other hand, few families spent for medical care amounts judged necessary, on the average, to meet normal medical requirements.

Fuller employment and increasing wage incomes in the last few years since the survey was made have undoubtedly made improvements in the situation of these families of city workers.

It seems clear that the primary efforts of the country for the next few years at least will be devoted to the expansion of the national

defense. The most urgent requirements of this group of moderate-income families and others at even lower economic levels can no doubt be met in large part without any interference with the defense effort. Actual and potential supplies of many food materials are ample for demands now anticipated.

In the fields of clothing, furniture, housing, and automobiles, supplies and possibilities of expansion are somewhat more limited. Accordingly, as the defense program advances, some changes will undoubtedly occur in family purchases at the income levels under consideration in this article.

The defense program will also undoubtedly cause changes which will alter the applicability of the savings estimates presented here. The survey made in 1917–19 showed a much greater saving in proportion to income than the recent survey, largely because of the widespread purchasing of Liberty bonds and thrift stamps in the earlier period in contrast to the deficits accumulated in the period just prior to the study made in 1934–36. Now that incomes are increasing because of fuller employment and rising wage levels, and a popular war-savings program is again being offered to the public, savings will probably again be made in considerably higher relative volume than in those years immediately following the depression.

# *Defense Activities and Conditions*

## VACATION POLICY AND NATIONAL DEFENSE

The granting of annual vacations with pay to wage earners, which was rare at the time of the last war, is now a common practice and such plans have rapidly become more liberal in the past few years. Also, in many companies the vacation plans are subject to negotiation and are incorporated in union agreements. The necessity for maintaining high production levels for national defense raises the question of the effect of this requirement on the vacation policies of different companies. A recent study [1] by the National Industrial Conference Board revealed that vacation problems had arisen in about 25 percent of 246 companies surveyed, while in a number of companies the management was not sure at the time the study was made whether or not difficulties would arise, since there was uncertainty regarding future production requirements, union demands, and the attitude or possible action of Government agencies concerning vacation policy. More than two-thirds of the companies, however, stated that no unusual problem had arisen and none was expected.

The types of industries which had been most affected by vacation problems resulting from heavy production demands were those engaged in manufacturing metals, electrical equipment, machinery, machine tools, and various other metal products, while little or no difficulty had yet been experienced by companies in the petroleum, textile, paper, and food industries.

In those companies which felt it would be impossible to carry out their regular vacation plans this year the problem was principally that of finding what adjustments could be made without suspending vacations altogether. In a few large organizations announcement had been made that defense work would require payment for vacations without giving time off for a vacation, but most of the companies were hoping to avoid this step. In many instances the view was expressed by executives that the vacations were needed because of the fact that workers have been under pressure for some time and may be under even more pressure in the coming year.

Vacation policies must be formulated, even under normal conditions, well in advance of the vacation season, especially since, with policies

[1] National Industrial Conference Board, Inc. Vacation Policy and National Defense, New York, 1941.

becoming more liberal, a large proportion of the working force has become eligible for vacation rights. This extension of the vacation right to a large proportion of a working force requires usually that individual vacations be staggered over a considerable period of time—in some cases, throughout the entire year. The granting of vacations under present conditions presents a problem not alone to defense industries, however, as companies not directly engaged upon defense work find their forces reduced by the loss of key men to the armed services and to the primary defense industries as well as on account of the present shortage of skilled labor. Although the effects of the employment situation upon this year's vacation problem vary among companies, it is evident they may become more serious next year under an accelerated defense program.

Vacation plans in a number of companies have contained a provision allowing employees the choice of remaining at work and receiving allowances in lieu of time off, and in some union agreements it is specified that if production demands require it the management may exercise the option of canceling vacations and paying earned allowances. In companies having such plans or agreements no particular problem is presented.

### *Changes in Vacation Plans*

The vacation plans of 22 of the reporting companies had been liberalized by reducing eligibility requirements, granting longer vacations, or calculating vacation pay on a more liberal basis. These changes were the result of better profits, union negotiation, or the desire of management to bring their policies into line with other companies in the industry. However, in 6 of these companies production demands for national defense were such that it would be necessary either to grant employees the option of remaining at work and receiving vacation pay, or to require them to do so.

Nineteen other companies had found it necessary to make certain changes in their vacation plans. Six companies which normally gave vacations to employees during a plant shut-down planned either to stagger vacations, encourage the employees to accept the option of extra pay in lieu of time off, or, in one case, give a few days at a time rather than the whole vacation at once. In four companies the vacation period had been extended over a longer time, two of these companies granting employees the option of remaining at work and receiving vacation pay. In 4 cases vacations were definitely suspended, with eligible employees receiving vacation pay. In two cases the modified plan applied only to employees who were eligible for 2 weeks' vacation, one of these companies requiring that employees take only 1 week at a time, and the other granting 1 week's vacation and 1

week's vacation allowance. One company had changed its plan of staggered vacations to a shut-down; one company had made no change except to cancel the privilege of extra time off without pay during the vacation period; and one company, after negotiation with the union, changed its plan to provide that if an employee is not granted a vacation in 1941 he will be paid one and one-half times the vacation money to which he was entitled, on January 2, 1942.

### *Possible Changes Outlined*

Of 26 companies replying to a question as to possible changes in vacation policy, 12 companies expected that vacations would be eliminated and a cash allowance paid, and in 5 instances employees would be offered the option of a vacation or a vacation allowance. In the remaining companies a change would be made from a plant shut-down to staggered vacations, or the opposite plan adopted of shutting down the plant instead of staggering vacations, or vacations would be postponed until later in the year.

Because there was doubt among executives as to the Government's attitude toward vacation policies, an inquiry addressed to the Office of Production Management brought the suggestion that in firms having vacation policies which might interfere with their ability to meet defense schedules the workers might be paid for vacations whether taken or not, or the vacation period might be delayed until some future date and the vacation time allowed to accumulate over a period of more than 1 year, thus following the system that is in practice in the Federal Government. It was also stated that where, for reasons of health, the employee requires a rest, vacations should not be denied.

### *Service Requirements and Length of Vacations*

An analysis of the service requirements and vacation allowances in the 246 companies is based on information secured in a study made in 1940 and corrected for all changes reported in effect this year. Ninety-six companies had uniform-type plans, that is, the same vacation allowance for all who have been employed a specified time, and 150 had graduated plans, which grant vacations after a specified minimum length of service but increase the vacation for longer periods of service.

Among the 96 companies having uniform-type plans, 52 gave 1 week's vacation, and 5 gave 2 weeks, after 1 year of service; 24 gave 1 week for service periods varying from 2 to 5 years; and 1 gave 2 weeks after 5 years. In the remaining 14 companies, varying allowances were given for service of 6 months or less.

In the graduated plans, followed by 150 companies, the minimum allowance is granted after 1 year's service in approximately 50 percent of the plans, after 2 to 5 years' service in 25 percent, and after 6

months' service or less in the remaining plans. One week is granted as the minimum vacation period in 52 percent of the plans; 1 day or less in 26 percent; and 2 or 3 days in the remaining 22 percent. Service requirements which entitle employees to the maximum vacation allowance vary more widely, ranging from 1 to 25 years. However, slightly more than two-thirds of the companies (102) grant the maximum allowance before, or at the completion of, 5 years' service. One week is the maximum vacation given by 50 companies, 1½ weeks by 3 companies, and 2 weeks by 89 companies. Only 8 companies grant more than 2 weeks' vacation, and this after service ranging from 10 to 25 years.

## RESTRICTIONS ON THE EMPLOYMENT OF ALIENS

THE employment of aliens in private industry on Government contracts is restricted by law in only a few instances. The most important restrictions are that "in the manufacture of aircraft and parts for the Government and 'in the performance of secret, confidential, or restricted Government contracts,' no alien may 'be permitted to have access to the plans or specifications or the work under construction or to participate in the contract trials without the written consent beforehand' of the Secretary of the Government department concerned."

Possibly under the impression that the legal restrictions are more extensive than they are, employers have gone far beyond the legal requirements, according to a report issued early this year by the Social Security Board.[1] The widespread character of this practice is shown in table 1, based on data from 11,954 establishments employing 3,133,648 workers. Of the industries listed in this tabulation, citizenship is required legally only in aircraft and parts. However, certain individual plants making professional and scientific instruments, and certain types of machinery "might also come under the law." As may be noted from the table, "the citizenship requirement is far more extensive than this. Granting that special precaution may be desired by the employers in some industries in which citizenship is not a legal requirement, as for example, fireworks (more specifically, powder) and industrial chemicals, there does not appear to be any justification for such a general prohibition of noncitizens" as prevailed at the time the survey referred to was made.

[1] United States. Federal Security Agency. Social Security Board. Bureau of Employment Security. Labor Shortages and the Restriction of Employment to Citizen Workers. Washington, 1941.

TABLE 1.—*Citizenship as a Requirement for Employment in Selected Defense Industries in Hirings Anticipated for Period November 1, 1940, to January 1, 1941* [1]

| Industry | "Hires" to take place between November 1, 1940, and January 1, 1941 | |
|---|---|---|
| | Employers' estimate of number | Percent requiring citizenship |
| Fireworks | 222 | 100.0 |
| Aircraft and parts [2] | 39,847 | 99.9 |
| Motorcycles, bicycles, and parts | 290 | 99.3 |
| Industrial chemicals | 5,404 | 94.7 |
| Petroleum refining | 1,400 | 94.5 |
| Ship and boat building | 6,603 | 94.1 |
| Automobiles and auto equipment | 9,079 | 93.5 |
| Primary alloying and rolling and drawing of nonferrous metals (excluding aluminum) | 331 | 93.4 |
| Electrical machinery | 7,128 | 88.7 |
| Aluminum products (including rolling and drawing) | 382 | 86.9 |
| Machinery (excluding electrical) | 16,404 | 76.9 |
| Professional and scientific instruments, photographic apparatus, and optical goods | 564 | 69.1 |
| Nonferrous metal foundries (excluding aluminum) | 350 | 68.3 |
| Fabricated plastic products (not elsewhere classified) | 159 | 59.1 |
| Iron and steel | 11,910 | 58.1 |
| Industrial rubber goods | 626 | 57.7 |
| Lighting fixtures | 372 | 40.1 |
| Railroad equipment | 2,111 | 32.2 |
| Models and patterns (excluding paper patterns) | 112 | 31.3 |
| Pressed or blown glassware (not elsewhere classified) scientific, technical, industrial, etc | 141 | 26.2 |
| Hardwood distillation, charcoal, naval, and stores | 327 | 19.6 |
| Surgical supplies, equipment and orthopedic appliances | 50 | 4.0 |
| Other industries | 66 | |

[1] As reported by 11,954 employers to United States public employment offices.
[2] Includes data from 1 employer of 14,000 workers, who indicated he would require 20,350 workers for the 12-month period beginning October 1940, all of whom would require citizenship.

It is quite possible that some employers who report citizenship as a requirement plan to employ aliens later, but wish merely to give job preference to citizens. The result of such procedure, however, is to make difficult the securing of workers by those establishments and industries in which citizenship is a necessary or legal requirement. Take, for example, the aircraft industry. If the metal and machinery industries would be less strict about the hiring of aliens, the aircraft industry, which is seriously in need of skilled and semiskilled workers, would find the task of recruiting labor considerably easier. When these industries for which it is not absolutely necessary to have citizen workers make citizenship a requirement for employment, it not only limits their own recruiting possibilities but also reduces the reserve available for the aircraft industry.

The fact that the restrictions concerning citizenship are different in different States is indicative of the arbitrariness of the exclusion of aliens. For instance, in the manufacture of railroad equipment, citizenship was a requirement for all hires anticipated between November 1, 1940, and January 1, 1941, in New York and Indiana, but not in Missouri. The requirement of citizenship for employment in the machinery industry ranged from 58 percent of the anticipated hires in New York to 94 percent in Maryland.

In general, a survey of the State employment office reports shows citizenship requirements are extensive in all industrialized areas. Throughout New England, in the tier of industrialized States from New York and New Jersey west through Wisconsin, and on the Pacific coasts, citizenship was generally specified in both defense and nondefense industries. In other words, the restrictions are operating precisely in those areas which have the greatest proportion of aliens and naturalized citizens and which are experiencing the greatest demand for labor, and where the supply of labor in certain occupations is approaching exhaustion. In the South, in the Midwestern agricultural States, and in the Rocky Mountain area, where the number of aliens and naturalized citizens is relatively small, there has been no special emphasis on citizenship.

The specifications of employers go much farther than the requirement for citizenship, in some cases demanding that both parents be American born. In Connecticut some establishments will hire naturalized citizens except naturalized Italians or Germans, but will not hire first-generation American workers who are of Italian or German extraction. In September 1940, Massachusetts reported that citizenship was a requirement for hiring by many employers even when they were not engaged in defense production. In October, California reported that notwithstanding an increasing shortage of labor, employers in the rubber, steel, and auto industries (none of which was filling defense orders) were stipulating that the workers to be added to their labor force should be citizens. At the same period a report from Pennsylvania stated that employers in general had waived employment restrictions as to sex, age, physical examination, and even color, but were still insisting upon citizenship.

Table 2 gives the estimated number of alien gainful workers in the United States in 1940. Excluding those who were 65 years of age and over, the number of noncitizens gainfully occupied was 1,983,000, of whom 1,715,000 were males.

TABLE 2.—*Estimated Alien Population 10 Years Old and Over, by Sex and by Number Gainfully Occupied, 1940*

| Sex | Number of aliens 10 years old and over | Number of gainfully occupied aliens | | |
|---|---|---|---|---|
| | | All ages | Excluding persons 65 years and over | Excluding persons 60 years and over |
| Total | 4,668,000 | 2,322,000 | 1,983,000 | 1,751,000 |
| Males | 2,497,000 | 2,022,000 | 1,715,000 | 1,505,000 |
| Females | 2,171,000 | 300,000 | 268,000 | 246,000 |

It is also estimated that in 1940 aliens constituted 7 percent, or 1 in 14, of the male gainful workers in the manufacturing and mechanical occupations in the United States, and as high as 16.5 percent, or 1 in 6, of the male gainful workers in those occupations in New York State. The percentage for Connecticut was almost as high—16.0.

The percentages in the other 13 major industrial States ranged from 2.5 in Missouri to 13.8 in Massachusetts, as reported in table 3.

TABLE 3.—*Estimate of Proportion of Aliens Among Male Gainful Workers in Manufacturing and Mechanical Occupations in Specified Industrial States, 1940*

| State | Estimates of males gainfully occupied in manufacturing and mechanical occupations | | | |
|---|---|---|---|---|
| | Total | Aliens | | Approximate ratio of aliens to total |
| | | Number | Percent | |
| United States | 13,000,000 | 907,000 | 7.0 | 1 in 14 |
| Connecticut | 273,000 | 43,700 | 16.0 | 1 in 6 |
| Massachusetts | 645,000 | 89,000 | 13.8 | 1 in 7 |
| Rhode Island | 117,000 | 13,900 | 11.9 | 1 in 8 |
| New Jersey | 617,000 | 72,300 | 11.7 | 1 in 8 |
| New York | 1,668,000 | 275,600 | 16.5 | 1 in 6 |
| Pennsylvania | 1,280,000 | 80,900 | 6.3 | 1 in 16 |
| Illinois | 966,000 | 77,700 | 8.0 | 1 in 12 |
| Indiana | 415,000 | 12,100 | 2.9 | 1 in 34 |
| Michigan | 768,000 | 78,700 | 10.2 | 1 in 10 |
| Ohio | 954,000 | 55,500 | 5.8 | 1 in 17 |
| Wisconsin | 342,000 | 15,200 | 4.4 | 1 in 23 |
| Missouri | 330,000 | 8,200 | 2.5 | 1 in 40 |
| Maryland | 204,000 | 8,600 | 4.2 | 1 in 24 |
| California | 612,000 | 75,000 | 12.2 | 1 in 8 |
| Washington | 193,000 | 15,100 | 7.8 | 1 in 13 |

## CLOTHES RATIONING IN GREAT BRITAIN [1]

MEN'S and women's clothing, footwear, cloth, and knitting wool were made subject to rationing in Great Britain on June 1, 1941. The system will operate in the same manner as in the case of food rationing, the purchaser being required to furnish coupons issued to him by the British Government when making a purchase of any of the items subject to control. The object of this action was to obtain a fair distribution of available supplies. Exemptions include clothing of children under 4 years of age; second-hand clothing for adults; men's and women's hats; workmen's overalls; hair nets; sewing thread; mending wool; shoelaces and ribbons and other fabrics less than 3 inches in width; and black-out cloth for windows.

Each person is entitled to 66 clothing coupons yearly, for use within the year. Extra allotments are provided for persons who lose their clothing and footwear on account of enemy bombing. The cost of a particular article of clothing purchased does not affect the number of coupons required to make the transaction. For example, a woman must present 11 coupons for a new dress and a man 26 coupons for a suit. A list of rationed articles that may be bought by men and women, respectively, in 1 year follows:

*Sample Clothing Ration for Men and Women*

| Men | | Women | |
|---|---|---|---|
| Item | Number of coupons | Item | Number of coupons |
| Total | 66 | Total | 66 |
| 1 suit | 26 | Coat | 14 |
| 2 shirts | 10 | 1 dress | 11 |
| Underclothing | 8 | 2 blouses | 10 |
| 1 pair of shoes | 7 | Skirt | 7 |
| 2 pairs of socks | 6 | Underclothing | 7 |
| Gloves and scarf | 4 | 1 pair of shoes | 7 |
| 1 tie, 2 collars | 3 | 3 pairs of stockings | 6 |
| 4 handkerchiefs | 2 | Handkerchiefs and gloves | 4 |

[1] Manchester Guardian, June 2, 1941.

# LODGING, TRAINING, AND TRANSFER ALLOWANCES OF BRITISH LABOR [1]

CERTAIN of the allowances made to British workers who are either undergoing training or transferred in the interest of the war effort have been changed recently and new ones have been authorized. The major provisions are given in brief below. Administration of the funds to reimburse workers who are lodged, trained, and transferred because of national requirements is carried on by the Ministry of Labor and National Service. The payments discussed apply in war industries for which special schemes have not been set up. To benefit, workers must have been transferred by an employment exchange or trade-union approved for this purpose.

## *Lodging Allowances*

A married man transferred to a new area may receive a lodging allowance of 3s. 6d. a night, including Sundays, as long as he maintains his home in the location from which transferred. When a man's dependents join him, the allowance ceases. An equal payment may be made to an unmarried worker, man or woman, who has similar family responsibilities.

## *Payments to Trainees*

Increasing numbers of workers, especially women, are needed in British munitions industries for training to do work requiring a greater or less degree of skill. Therefore, the Government has found it desirable to authorize payment to trainees under the Government training scheme that is broadly equivalent to what they would have received if entering into productive industry directly. Changes were made in the basis of payment effective March 31, 1941.

Trainees who were not formerly regarded as under a contract of service were paid allowances that varied according to the expenses they incurred during training. For example, persons living at home were paid less while being trained than those who were paying for lodging. At present, trainees are regarded as under a contract of service and receive a weekly wage. They are liable for health- and social-insurance contributions and are eligible for lodging allowances, exactly as are ordinary workers. For workers 19 years of age and over in Government training centers, where the course normally lasts about 4 months, three training tests are authorized at monthly intervals. Upon passing each test men receive a wage increase of 5s. a week and women 3s. Where shorter courses are given, these additions to pay are not made.

[1] Great Britain, Ministry of Labor Gazette for January (p. 6), March (pp. 51, 53), and April (p. 78) 1941.

The basic rates of weekly allowances to trainees vary according to sex, age, and number of dependents. The highest basic payment to men (aged 21 years and over) is 60s. 6d. weekly and for women 38s. In the final month of training, after completion of the three successive tests, these men receive 75s. 6d. a week and women 47s.

Young trainees under 19 years of age at Government training centers and emergency training establishments also had their allowances raised on March 31. Males aged 18, but under 19, who are within daily traveling distance of their homes, receive 23s. weekly and those 16 and under 18 years of age 17s. weekly. For females of corresponding ages the allowances are 21s. and 15s., respectively. If the young trainees live away from home, they are entitled to lodging allowances and a sum by way of pocket money. A free mid-day meal or a payment in lieu of food is also given. Increments of 2s. a week are added to the pay of young persons under 19 if they pass proficiency tests. This applies in Government training centers but not in emergency training establishments.

### *Payments to Transferred Workers*

A system was introduced on February 24 whereby workers who are transferred from one district to another receive a "settling-in" grant. This payment is made if the worker is engaged in work of national importance and if he or she does not receive a lodging allowance. The amount of the grant for "settling-in" is 24s. 6d. at the end of the first week in the new employment. Women receive another 10s. at the end of the second week of employment.

To assist workers in meeting the cost of rent, taxes, mortgage interest, or furniture storage in the home area, when they are unable to terminate liabilities before being transferred, a "continuing liability" allowance was provided, beginning on March 13. It is payable to workers who would ordinarily be eligible for a lodging allowance but are barred from receiving it because their dependents have joined them in the area to which they are transferred. Workers qualifying for the "continuing liability" allowance have also been granted the right to obtain free fares to cover the cost of transporting their dependents to the place to which they are transferred. This is in addition to the free traveling warrant for the first journey made by the employed worker to the new place of work and the payment for traveling time of 5s. (3s. for a worker under 16) if it lasts over 4 hours.

Transferred workers may also borrow up to £1 from the employment exchange on reaching the new area. This must be repaid out of the first week's full pay in the new area. Government aid in moving the workman's family and furniture is granted, if it appears he will remain in the new location for a considerable length of time and it is desirable that his family come to live there.

# TRAINING PROGRAM OF THE CANADIAN PULP AND PAPER INDUSTRY

A COMPREHENSIVE program to build up a technically trained wartime working force has recently been put into effect by the pulp and paper industry in Canada.[1]

More than 7 months ago a small committee was organized by the Canadian Pulp and Paper Association to study the problems and possibilities of inaugurating a training scheme to replace men leaving the industry as a result of enlistments, transfers, and loans to undertakings engaged directly in filling war orders.

Early in the investigation it became obvious that the pulp and paper industry could be helpful under war conditions by training men in mechanical trades beyond the normal and predictable demands of the industry.

An experimental program which was initiated by one of the smaller companies was expanded and developed by one of the largest establishments into the plan which is now being carried on in 6 mills in eastern Canada with about 250 trainees. It seems probable that the plan will be generally adopted by the industry.

The scheme stresses two basic features which it is hoped will be retained by any mill establishing a training program: (1) The selection of intelligent, interested trainees who will take advantage of the instruction, which should be on an individual rather than on a group or class basis; (2) the scheme to be an integral part of the organization of the establishment and operated on a voluntary basis. Furthermore, the interest and support of all line executives are considered requisite, as well as the cooperation of foremen and those skilled workers and executives who act as mentors, advisers, or instructors.

The present plan is briefly outlined as follows:

A training director is appointed for each company or group of mills, who, under the chief engineer or other executive officer, and in cooperation with a training advisory board in each mill, exercises general direction and supervision of the scheme. The advisory board consists of the mill manager as chairman, the plant engineer as manager of training, the personnel supervisor as secretary, and the mill engineer, master mechanic, steam superintendent, and electrical superintendent as the other members.

Courses have been organized in machine-shop work, blacksmithing, pipe fitting, welding, millwrighting, tinsmithing, electrical work, and steam engineering. Instructors are appointed from among the foremen and skilled tradesmen. Those on salary act without extra pay, but instructors who are paid wages may be paid for this extra work at overtime rates (or as arranged).

The trainees, who are all members of the plant force, are classified in 2 groups—"group A," those who are regularly engaged in the maintenance department and are following a course directly connected with their day's work; and "group B," those whose courses are not directly

[1] Canadian Labor Gazette, Ottawa, May 1941.

related to their ordinary duties in the mill. Trainees in group A may or may not get formal trade training in the shops, but receive instruction and are supervised on the job, and are transferred from job to job in order that the training may be highly effective. The workers in group B attend special evening trade training classes in the shops twice a week for 3 hours each night. The instructors are selected skilled men who are supervised, according to the instruction they give, by the master mechanic, the electrical superintendent, or the superintendent for steam engineering.

Each trainee enrolls for 1 year's correspondence with the International Correspondence School. Each course is specially planned for this particular scheme in cooperation with the training director. The training fee is $64.25 per man, which the company pays in advance and deducts from the trainee's wages at the rate of $1.25 a week. Mentors or advisers selected from the executive and engineering personnel are designated to supervise the work of from 2 to 6 trainees, and it is the duty of each of these mentors to see that his trainees progress in a satisfactory way. Complete records of progress are kept and the lessons are mailed by the company. The employer also supplies small tools, and everything possible is done to arouse and hold the interest of everyone concerned.

A new development, designed to energize and accelerate the training program, is the scheme under which approximately 40 maintenance shops in the larger mills are producing machined parts for machines, engines, ships, etc., which the war-production plants and shipyards find it advisable or necessary to have made in outside establishments. This not only intensifies war production by the utilization of skilled labor and machine tools previously used only for maintenance work, but it provides useful war employment for mechanics and trainees in the maintenance shops. In plants in which two or more shifts are worked, it enables the management to provide more training and develop better mechanics in less time than was possible under the evening training system.

Another development closely related to the training program and which could not continue without the use of trainees is the scheme under which the pulp and paper mills in the eastern part of the Dominion have made arrangements to delegate a few highly skilled mechanics from each mill to aid one of the more important war industries in getting into production. At present more than 60 of these men are loaned for about 3 months, during which period "they will master the details of various jobs and train others to carry on after they return to their regular jobs in the pulp and paper mills. They are being retained on the pay rolls of the mills during their absence and are paid at the rate for mechanics in the war industry, each mill

being reimbursed by the war industry for wages." The establishment assisted also bears the expense of the worker's travel and living allowances.

The importance of this service to war production is obvious. Its retardation of the work of the maintenance departments of the mills will be offset in part by replacing loaned men with semiskilled trainees.

## WOMAN FARM-SERVICE VOLUNTEERS IN ONTARIO

THE Province of Ontario has launched a campaign to secure woman help for farmers. Women are needed on fruit and vegetable farms; in fruit-pickers' camps, as cooks, assistants, and camp mothers; and in canneries and packing houses. The women responding to this call are known as "Farm Service Volunteers." [1]

In her application for work on the land, a woman is requested to designate whether she would like to be considered as a farm worker or picker, a camp-house mother, a cannery or packing-house worker, or a camp assistant, and whether she wishes to live in a supervised camp, board in selected farm homes, or live at home and go to work each morning by streetcar, bus, bicycle, truck, etc.

The Provincial Government makes provision for free transportation for bona fide workers to their place of employment on the following conditions:

1. That workers will state that they are going to work on a farm for a period of not less than 3 weeks.
2. That transportation is good only for the going journey.
3. That transportation is not available for workers from points outside of Ontario.

In order to secure transportation a volunteer must apply for it in person through an employment service office, presenting an order stating where and when she is to be employed and the duration of employment. The order is issued by the Director of the Farm Service Force in Toronto.

Requirements issued in connection with fruit and vegetable work specify that—

1. All workers must be over 16 years of age and not over 45 years.
2. Camps for women and girls working on the land are being established by the Y. W. C. A. in cooperation with the Government of Ontario, the housing, food, and supervision being the responsibility of the Y. W. C. A.
3. Each camp has its own staff of house mother and assistants.
4. A Y. W. C. A. supervisor from the national headquarters visits each camp regularly to act in an advisory capacity and to share the responsibility for maintaining standards.

[1] Ontario. Department of Labor. Farm Service Force. Women's Work on the Land. Ottawa, 1941.

5. Among the workers will be a Government secretary in each camp to arrange with the workers at which farm they are to work. All requests from farmers for workers should be referred to her.

6. The majority will sleep in tents on single cots. A house or building will be central for cooking, eating, recreation, storing clothes, and for sleeping in case of illness.

## *Wages, Hours, and Working Conditions in Fruit and Vegetable Work*

The women in the Farm Service Force may pick, pack and ship fruit; weed, hoe, and gather vegetables; and prune, spray, and tie vines.

When volunteers are on hourly rates, the minimum wage will be 17½ cents per hour. The more efficient workers will be paid higher rates. Minimum piece rates are as follows:

| | | *Cents* |
|---|---|---|
| Cherries, sweet | 6 quarts | 8 |
| Cherries, sour, stemless | 6 quarts | 12½ |
| Currants, black | 1 pint | 4 |
| Currants, red | 1 pint | 4 |
| Raspberries | 1 pint | 1½ |
| Strawberries | 1 quart | 1½ |

The working period will range from 9 to 10 hours per day, with overtime in emergencies. Once or twice in the season work on Sunday may be required, if fruit and weather conditions warrant such action.

The Department of Labor will appoint district representatives to look after both employers' and workers' interests. These government agents will withdraw girl workers from farms which for any reason pay inadequate rates. They will also dismiss from the Farm Service Force "girls whose conduct or work is proved, after investigation, to be unsatisfactory." The district representative will cooperate with the camp secretary.

Before going to camp all pickers should undergo a medical examination and be "pronounced by family physician as physically fit for farm work." As a precautionary measure, they should also be inoculated against typhoid.

## *Seasonal Work Period*

Planting begins in May and apple picking will be over in November. The majority of workers are required between June 10 and August 5 and between August 15 and September 30. Priority will be given workers who register for the longest service. The work period for which the applicant registers should be as long as possible; in no instance, will a worker be taken on for less than 2 weeks. Going fare will be allowed only for those who remain for at least 3 weeks. Applicants who can volunteer for 2 or 3 weeks only will be employed if they can serve during the above-mentioned peak periods.

### *First Farmerette Workers Recruited*

According to St. Catharine's Standard of May 19, 1941, published in St. Catharine's, Ontario, 20 girls from Hamilton, Toronto, and Strathroy had started to work that day on Grantham Township farms, inaugurating the Ontario Provincial Government farmerette scheme to relieve the wartime farm-labor shortage.

## CANADIAN GOVERNMENT ASSUMES CONTROL OF MUNITIONS PLANT AT HAMILTON

IN THE latter part of April the Dominion Government assumed control of the Hamilton plant of the National Steel Car Corporation, Ltd., after that establishment had rejected a recommendation of a conciliation board constituted under the Industrial Disputes Investigation Act. The following account of this action by the Government is given in the Canadian Labor Gazette of May 1941.

The Associate Director General of Munitions in the Department of Munitions and Supply, Mr. E. J. Brunning, was appointed controller of the Hamilton plant of the National Steel Car Corporation Limited, engaged in the manufacture of shells, etc., by Order in Council, April 29, 1941, P. C. 3040, to have the custody and control of the undertaking and, in the name of the company, to manage and carry on the operations of the plant. This was done on the recommendation of the Minister of Munitions and Supply, as a result of disputes referred to a board under the Industrial Disputes Investigation Act which led to a cessation of work by a substantial number of employees which seriously interrupted and impaired the production of munitions, following the failure of the company to comply with the recommendations of an interim report of the Board, made on April 10, 1941. [The interim report of the Board and an outline of the strike appear in the above-mentioned issue of the Gazette.] Operations were fully renewed in the plant at 7 a. m. on the following day April 30.

During the war from 1914 to 1918, owing to stoppages of work in coal mines in Alberta and the Crows Nest Pass area, British Columbia, a Director of Coal Operations was appointed, Mr. W. H. Armstrong of Vancouver, B. C. The Order in Council June 25, 1917, P. C. 1725, empowered the Director to make investigations respecting prices, wages, hours, and other conditions of labor and generally to control the operations of the collieries and coke ovens in the area known as District 18, United Mine Workers of America. The owners and the management of the mines and coke-producing plants were required to comply with the orders of the Director, who was empowered to fix wages and the selling price of coal and coke and take possession of

any coal mine or coke-producing plant within the district. In 1918 the Fuel Controller of Canada, Mr. C. A. Magrath, was similarly appointed Director of Coal Operations for the Maritime Provinces owing to disputes arising there.

## FORCED LABOR IN NORWAY

THE Government set-up in Norway, controlled by the German occupational authorities, issued a decree on March 27, 1941, prohibiting employers from discharging workers, and workers from quitting their jobs, without permission of the Government Labor Distribution Office.[1] This prohibition is applied first to 19 industries and trades needful for military purposes of the German occupational forces.

Aluminum plants (smelting works and industries connected with additional manufacturing processes).
Mining (ore refining, smelting works, etc.).
The German Defense Forces' technical industries.
Fish-net factories.
Tanneries with more than 10 employees.
Chemical factories.
Leather factories with more than 10 employees.
Radio and telephone industries (including cable industries and electro-optical industries).
Ropewalks.
Cement factories.
Sack factories.
Navigation.
Shipyards (metal and wood shipyards).
Shoe factories with more than 20 employees.
Spinning works.
Steel and iron foundries (including iron-alloy works).
Rope factories.
Arms and ammunition factories (including repair shops for airplane motors).
Tool and machine factories.

Only in certain exceptional cases will permission to sever the employment agreement be granted by the Government; for instance, if a skilled worker employed in an unskilled trade desires to be transferred back to his skilled trade, which lacks workers; in cases of serious sickness; or in cases when further training is to be secured. In any event, the reason for termination of an employment agreement must be acceptable to the Government. Permission is not needed when employment agreements are of a probationary nature, or in cases of approved discontinuance of industry or trade, but in such cases the employer is to report the termination of the employment agreement to the Labor Distribution Office within 5 days after closing his enterprise.

[1] Norsk Lovtidend (Law Bulletin of Norway), Oslo, April 18, 1941.

The decision of the local labor-distribution office may be appealed to the district office, and, in the more important cases, the decision of the district office may be appealed to the Directorate of Labor Distribution and Unemployment Insurance. The Directorate's decision is final and binding for all concerned. No cases of termination of employment agreements can be tried in any court or in any other manner than as provided in the decree. Any person violating or avoiding its provisions or assisting in its evasion will be punished by fine or imprisonment up to 3 months or by both. Under certain conditions, more severe punisbment may be inflicted. The decree became effective April 1, 1941.

# *Labor Productivity*

## PRODUCTIVITY TRENDS IN THE MILLING INDUSTRY [1]


### *Summary*

OUTPUT per man-hour in the flour and other grain-mill-products industry increased by more than two-thirds between the end of the first World War and the year 1931. From that year through 1937 there was a decline in labor productivity. In 1939 and 1940, however, man-hour output was nearly as great as in 1931 and almost 9 percent greater than in 1929. It is difficult to determine the causes of decline from 1931 through 1937. Contributing factors may have been the increase in the amount of product packaged in small containers, the relatively low level of production during this period, and a slight increase in the number of small mills in operation. The long-term trend toward increasing productivity appears to be attributable in large part to the growing importance of large milling establishments, which are able to utilize their labor force more efficiently than small plants. Although there were no important technological developments during the two decades, there were some minor improvements in machinery. Large mills were able to take fullest advantage of these.

Despite the fact that production of flour and other grain-mill products was considerably lower during the last 2 years than in 1929, employment was not curtailed, principally because of a general reduction in the length of the workweek.

Average hourly earnings in the industry rose substantially during the thirties, from about 45 cents in 1932 to more than 60 cents in 1939 and 1940. Labor costs per unit of output in flour mills are nevertheless slightly lower now than in 1929, as a result of the higher productivity of the workers.


[1] Prepared by Lenore A. Epstein and Harry Brenner under the direction of Emmett H. Welch and Duane Evans, Productivity and Technological Developments Division, Bureau of Labor Statistics. The indexes of production, man-hours, and productivity for the period 1919 through 1937 used in this article were developed by the National Research Project of the Work Projects Administration. Using similar methods, the Bureau of Labor Statistics has extended these and other indexes through 1940.

## *Characteristics of the Industry*

The flour and other grain-mill-products industry, as defined by the Census of Manufactures, includes establishments engaged primarily in the manufacture of flour, meal, and feed from wheat, corn, and other grains. It does not include establishments using such grain together with other materials in the preparation of mixed feeds, nor mills whose chief products, such as cereal preparations, are the result of further manufacturing processes. Furthermore, the industry as defined is limited to merchant mills, which process grain they have purchased and sell the products. "Custom" mills, i. e., those milling on a contract basis grain owned by others, are excluded. However, establishments that report both merchant and custom business are included even if custom work accounts for more than half their total business.

A striking characteristic of this industry is the small amount of labor, relative to output, required in the milling process. This is due to the fact that the machinery is nearly automatic, requiring few attendants.[2] On the basis of preliminary census reports, the flour and other grain-mill-products industry in 1939 ranked seventy-third among manufacturing industries as an employer of labor. In the same year, however, it stood ninth with respect to cost of materials and purchased energy, nineteenth with respect to the value of products produced, and thirty-fifth with respect to value added by manufacture.

The 2,143 mills in the industry in 1939 employed only 24,771 wage earners in manufacturing, with total wages amounting to $28,370,000. The total value of products was $649,943,000, of which $143,882,000 represented the value added by manufacture and $506,062,000 the material costs. Thus, direct labor costs amounted to a bare 20 percent of the value added by manufacture and to only slightly more than 4 percent of the total value of products. (See table 1.) For comparison, corresponding figures for all manufacturing industries combined were 37 percent and 16 percent, respectively.

[2] In 1937, more electric energy was used per man-hour in the flour and other grain-mill-products industry than in any but the following 8 of 105 manufacturing industries for which man-hour statistics were collected by the Census of Manufactures: Paper, pulp, petroleum refining, cement, blast-furnace products, and copper, lead, and zinc smelting and refining. (See U. S. Bureau of the Census and U. S. Bureau of Labor Statistics, Census of Manufactures, 1937: Man-Hour Statistics in Selected Industries.)

TABLE 1.—*Summary Statistics for the Flour and Other Grain-Mill-Products Industry, 1899–1939* [1]

| Year | Number of establishments | Number of wage earners (average for year) | Wages (in thousands) | Cost of materials, etc. [2] (in thousands) | Value of products (in thousands) | Value added by manufacture (in thousands) | Production of wheat flour (in thousands of barrels) |
|---|---|---|---|---|---|---|---|
| 1899 | 9,476 | 32,226 | $16,285 | $428,117 | $501,396 | $ 73,280 | 99,764 |
| 1904 | 10,051 | 39,110 | 19,822 | 619,971 | 713,033 | 93,062 | 104,013 |
| 1909 | 11,691 | 39,453 | 21,464 | 767,576 | 883,584 | 116,008 | 105,757 |
| 1914 | 10,788 | 39,718 | 24,593 | 752,270 | 877,680 | 125,410 | 116,404 |
| 1919 | 10,708 | 45,481 | 50,888 | 1,799,181 | 2,052,434 | 253,253 | 132,466 |
| 1921 | 6,485 | 35,378 | 43,143 | 993,810 | 1,179,740 | 185,930 | 110,846 |
| 1923 | 5,232 | 35,194 | 41,704 | 885,972 | 1,048,577 | 162,606 | 114,439 |
| 1925 | 4,413 | 31,988 | 39,700 | 1,125,379 | 1,298,015 | 172,636 | 114,690 |
| 1927 | 4,035 | 29,982 | 37,559 | 972,711 | 1,148,760 | 176,049 | 118,132 |
| 1929 | 4,022 | 27,028 | 35,072 | 868,873 | 1,060,269 | 191,397 | 120,094 |
| 1931 | 2,412 | 22,840 | 27,298 | 461,091 | 598,041 | 136,950 | 115,419 |
| 1933 | 1,932 | 23,207 | 22,591 | [3] 432,671 | 567,003 | 134,332 | 101,638 |
| 1935 | 2,193 | 26,495 | 27,105 | [3] 716,222 | 853,219 | 136,997 | 102,327 |
| 1937 | 2,238 | 26,390 | 30,186 | 772,711 | 856,310 | 133,600 | 105,274 |
| 1939 [4] | 2,143 | [5] 24,771 | [5] 28,370 | 506,062 | 649,943 | 143,882 | 111,369 |

[1] Source: U. S. Census of Manufactures. Since 1921, only establishments with a value of products of $5,000 or more have been included; in 1919 and earlier years, establishments with a value of products of $500 or more were included.

[2] Includes not only the cost of materials actually used in manufacture, but also the cost of supplies and containers for products, fuel, purchased electric energy, and contract work.

[3] Includes processing tax of 30 cents per bushel of wheat, established under the A. A. A.

[4] Preliminary.

[5] Not exactly comparable with previous years. In 1939 wage earners engaged in distribution, construction, etc., were reported separately from those in manufacturing and are, therefore, excluded from this tabulation.

## *Changes in Productivity, 1919–40*

Trends of output per man-hour in the flour and other grain mill products industry from 1919 to 1940 may be conveniently divided into three general periods. The first of these covers the years from the end of the first World War to 1931. During this time the index of productivity rose steadily from a level of 64 in 1919 to 111 in 1931. In the latter year, man-hour output in the industry was at its peak for the two decades under consideration. (See table 2.) The second period witnessed a gradual decline of the index to a mark of 97 in 1937. Finally, after 1937, the index of production per man-hour again moved upward, reaching a level in 1939 and 1940 only slightly below that of 1931. The following paragraphs treat with the relations between these trends and the movements of production, employment, pay rolls, average weekly hours, and average hourly earnings.

During the first period of steadily rising productivity between 1919 and 1931, total activity in the industry fluctuated within fairly nar-

row limits.[3] Production of wheat flour, which generally accounts for 70 to 80 percent of the total value of products, varied between 110,000,000 and 130,000,000 barrels.

TABLE 2.—*Indexes of Production, Employment, Man-Hours, Output, Pay Rolls, and Unit Labor Costs in the Flour and Other Grain-Mill-Products Industry, 1919–40* [1]

[1929=100.0]

| Year | Production | Employment | Man-hours | Output per— | | Pay rolls | Labor cost per unit of output |
|---|---|---|---|---|---|---|---|
| | | | | Wage earner | Man-hour | | |
| 1919 | 110.9 | 167.5 | 172.5 | 66.2 | 64.3 | 145.0 | 130.7 |
| 1920 | 91.2 | 151.0 | 154.9 | 60.4 | 58.9 | [2] | [2] |
| 1921 | 96.3 | 130.6 | 133.3 | 73.7 | 72.2 | 123.0 | 127.7 |
| 1922 | 100.3 | 132.6 | 135.4 | 75.6 | 74.1 | [2] | [2] |
| 1923 | 101.1 | 130.1 | 132.8 | 77.7 | 76.1 | 118.9 | 117.6 |
| 1924 | 103.4 | 123.7 | 125.8 | 83.6 | 82.2 | 117.9 | 114.0 |
| 1925 | 99.2 | 118.4 | 119.8 | 83.8 | 82.8 | 113.3 | 114.2 |
| 1926 | 100.2 | 113.9 | 114.8 | 88.0 | 87.3 | 110.2 | 110.0 |
| 1927 | 99.2 | 110.9 | 111.8 | 89.4 | 88.7 | 107.1 | 108.0 |
| 1928 | 100.3 | 106.1 | 107.2 | 94.5 | 93.6 | 104.7 | 104.4 |
| 1929 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1930 | 98.7 | 91.7 | 93.5 | 107.6 | 105.6 | 91.8 | 93.0 |
| 1931 | 93.1 | 84.5 | 83.7 | 110.2 | 111.2 | 77.8 | 83.6 |
| 1932 | 85.9 | 81.5 | 79.4 | 105.4 | 108.2 | 65.8 | 76.6 |
| 1933 | 81.5 | 85.9 | 75.8 | 94.9 | 107.5 | 64.4 | 79.0 |
| 1934 | 82.4 | 98.4 | 77.2 | 83.7 | 106.7 | 75.3 | 91.4 |
| 1935 | 81.9 | 98.0 | 78.5 | 83.6 | 104.3 | 77.2 | 94.3 |
| 1936 | 86.0 | 96.0 | 85.1 | 89.6 | 101.1 | 79.9 | 92.9 |
| 1937 | 84.6 | 97.6 | 86.9 | 86.7 | 97.4 | 86.0 | 101.7 |
| 1938 [3] | 87.6 | 95.9 | 85.1 | 91.3 | 102.9 | 85.1 | 97.1 |
| 1939 [3] | 90.8 | 98.3 | 84.3 | 92.4 | 107.7 | 88.0 | 96.9 |
| 1940 [3] | 88.8 | 98.3 | 82.5 | 90.3 | 107.6 | 86.9 | 97.9 |

[1] Source: Indexes of production, employment, man-hours, and output per wage earner and per man-hour for 1919–37 were prepared by the Work Projects Administration, National Research Project on Reemployment Opportunities and Recent Changes in Industrial Techniques, David Weintraub, Director. Data for 1919–36 were published originally in the project's report, Production, Employment, and Productivity in 59 Manufacturing Industries, 1919–36, by Harry Magdoff, Irving H. Siegel, and Milton B. Davis. The 5 indexes have been extended through 1940 by the U. S. Bureau of Labor Statistics, using methods and sources similar to those of the National Research Project. Preliminary data from the 1939 Census of Manufactures has been used in preparing the production index for the years 1938–40. The employment and pay-roll indexes, on the other hand, are the regular Bureau of Labor Statistics indexes, and have not been adjusted to the 1939 Census of Manufactures. These indexes show a slight increase from 1937 to 1939, whereas the Census indicates a slight decrease. This decrease is probably attributable to the fact that in 1939 wage earners engaged in distribution, construction, etc., were for the first time reported to the Census separately from wage earners in manufacturing and excluded from the tabulations of wage earners. Since relatively small adjustments have been required previously to make the employment and pay-roll indexes for this industry conform to Census levels, the indexes probably provide a reasonably accurate picture of trends since 1937 in wage earner employment and pay rolls as defined by the Census prior to 1937.
The index of unit labor cost is derived by dividing the index of pay rolls by the production index.
[2] Not available.
[3] Preliminary.

Since production was not increasing and the workweek (averaging approximately 50 hours) was almost as long at the end as at the beginning of the period,[4] large numbers of flour-mill workers were

[3] The index of production is based on census statistics for six classes of products: Wheat flour; bran and middlings; feed, screenings, etc.; rye flour; corn meal and corn flour; and buckwheat flour. These account for over 96 percent of the value of products of the industry. Total production of each of these products in each census year was weighted by the average unit-value of each product in 1929. For intercensal years, production was estimated by means of an annual wheat-consumption series (bushels of wheat ground).

[4] Estimate of working hours based on prevailing hours reported by the Census of Manufactures and the results of a field study conducted by the National Research Project and the National Bureau of Economic Research. (See Work Projects Administration, National Research Project: Production, Employment, and Productivity in 59 Manufacturing Industries, part 3, p. 54.)

displaced during this period of increasing output per man-hour. From a peak of about 45,500 in 1919, the number of wage earners employed declined to about 22,800 in 1931.

Information on actual hourly earnings is not available for the years prior to 1932. Comparison of the movements of the index of pay rolls with the man-hour series suggests, however, that wage earners in flour mills derived some advantage from the rapidly rising productivity. There appears to have been a fairly steady increase in hourly earnings from the end of the war through 1929, followed by a decrease in the first years of the depression. However, since this decrease was less marked than the reduction in living costs, as shown by the cost-of-living index of the Bureau of Labor Statistics, the real hourly earnings continued at least as high.

The manufacturer at the same time benefited from a steady decline in labor costs per unit of output. The index of unit labor cost was over 130 in 1919, as compared with 100 in 1929. By 1931 it was less than 84.

During the period from 1931 to 1937, the general trend toward increasing output per man-hour in the flour-milling industry was reversed. There were a number of shifts in the relations between physical production, working hours, employment, and pay rolls.

The decline in output of flour and other grain mill products, begun in 1929, continued during the period. Production was curtailed sharply in 1932 and again in 1933, then leveled off for 2 years, averaging almost 20 percent lower than in 1929. Although production was somewhat greater in 1935 and 1936, it remained substantially below the 1931 level.

Average hours of work were reduced substantially from about 48 per week in 1932 to 43 in 1933, as a result of the President's Reemployment Agreement, which was made effective in August 1933. The establishment in June 1934 of a NRA code for the industry resulted in a further reduction in average hours to 39 per week. In 1936, however, weekly hours reverted to the 1933 level, following the invalidation of the National Industrial Recovery Act.

Employment, which had been declining steadily since 1919, continued downward between 1931 and 1932, but recovered slightly in the following year, largely as a result of the sharp reduction in hours of work. In 1934, the number of wage earners in the industry rose to a point only slightly below the 1929 level. Thereafter, employment remained about the same from year to year.

During this period of declining productivity, average hourly earnings rose steadily, with the most marked increase occurring between 1933 and 1934, under the impetus of the NRA code. Weekly earnings declined between 1932 and 1933, since the reduction in hours more than offset the slight rise in hourly earnings. From that year on, however, there was a steady improvement in weekly earnings.

The processor's labor costs per unit of output, on the other hand, rose substantially after 1932. By 1937, when labor productivity was at its low point for the decade of the thirties, they were slightly above the 1929 level.

Productivity has again been increasing since 1937, but since production has been at slightly higher levels and the workweek has been further shortened,[5] employment has remained fairly constant. Year by year, the wage earners in the industry have enjoyed slightly higher hourly earnings. The total pay roll for the industry has not, however, changed appreciably. Labor costs per unit of output, while slightly lower than in 1937, have remained higher than at any other time during the thirties.

TABLE 3.—*Hours and Earnings in the Flour and Other Grain-Mill-Products Industry, 1932–40* [1]

| Year | Average weekly hours | Average hourly earnings | Average weekly earnings | Year | Average weekly hours | Average hourly earnings | Average weekly earnings |
|---|---|---|---|---|---|---|---|
| | | *Cents* | | | | *Cents* | |
| 1932 | 47.9 | 45.3 | $22.01 | 1937 | 44.3 | 57.1 | $25.59 |
| 1933 | 43.4 | 46.0 | 20.34 | 1938 | 43.7 | 59.3 | 26.12 |
| 1934 | 38.6 | 53.5 | 20.81 | 1939 | 42.3 | 60.5 | 25.80 |
| 1935 | 39.4 | 54.8 | 21.68 | 1940 | 41.4 | 61.1 | 25.42 |
| 1936 | 43.8 | 53.6 | 23.60 | | | | |

[1] Source: U. S. Bureau of Labor Statistics. The results obtained by multiplying average weekly hours by average hourly earnings do not necessarily produce the average weekly earnings shown, since the latter are based on reports from all cooperating establishments, whereas the former are computed from a slightly smaller sample of establishments which report man-hours.

## *Factors Affecting Productivity*

Changes in labor productivity are frequently the result of changes in the mechanical equipment or manufacturing methods used by an industry. However, changes in over-all unit labor requirements may also result from shifts in the proportion of the total output of the industry contributed by establishments at different productivity levels. The latter effect may, of course, occur when there have been no changes whatsoever in manufacturing techniques.

Virtually all basic machinery used in flour milling was fully developed prior to the period covered by the present study. The few improvements in milling equipment which first became available after 1919 were for the most part of minor importance. Nevertheless, a wide range of plant efficiencies is found in practice.

[5] The requirement, under the Fair Labor Standards Act, that hours over 44 per week be paid for at one and one-half times the regular rate after October 1938, and the subsequent reductions in this limit to 42 and 40 hours 1 and 2 years later, have undoubtedly been important factors in the decline in average weekly hours. The act has probably not had a material effect on the wage scale, to date, except perhaps in certain sections of the South, since most mills were paying above the statutory minimum (25 cents per hour beginning in October 1938 and 30 cents since October 1939). According to a job analysis of characteristic mill occupations in Kansas in 1939, for common laborers (both sweepers and truckers) average earnings were 45 cents per hour, with the minimum 30 cents, and the maximum 60 cents. (See National Youth Administration in Kansas, Industry Study No. 1: The Milling Industry in Kansas, Topeka, 1940, pp. 35–42.)

Mills were slow to take advantage of labor-saving techniques, largely because labor costs in the flour-milling industry are small and do not constitute a critical competitive factor. For this reason, modernization of existing plants is infrequent; more advanced processing equipment is installed mainly as new plants are constructed.

More important than improved techniques as a factor in the rise in man-hour output has been the shift in production from small to large plants. Even assuming full utilization of the most recent technical developments, labor requirements per barrel of flour are in general lower the greater the capacity of the plant, because flour-milling machinery is so nearly self-operative. In other words, a large mill can utilize its workers more efficiently than a small mill, since the labor force cannot be reduced below a certain minimum. A plant with a 400-barrel daily capacity, for example, probably requires about as many workers, except for packaging, as does a 500-barrel mill equipped with similar machinery. Moreover, the larger mills in the industry are in general of more recent construction than the smaller ones, and hence have taken fuller advantage of the labor-saving possibilities of more recent equipment.

TABLE 4.—*Man-Hour Statistics for Selected Establishments in the Flour and Other Grain-Mill-Products Industry, by Size of Plant, 1937* [1]

| Item | United States | Number of wage earners | | | | |
|---|---|---|---|---|---|---|
| | | 1 to 5 | 6 to 20 | 21 to 50 | 51 to 100 | 101 to 2,500 |
| Number of establishments | 847 | 299 | 289 | 147 | 70 | 42 |
| Number of wage earners (average for year) | 20,660 | 942 | 3,169 | 4,628 | 4,814 | 7,107 |
| Average hours per month per wage earner | 191.9 | 208.1 | 210.9 | 191.6 | 190.5 | 182.6 |
| Average per wage-earner man-hour: | | | | | | |
| Wage earnings (cents) | 52.7 | 35.9 | 40.0 | 49.5 | 50.2 | 65.8 |
| Salary costs (cents) | 23.9 | 15.0 | 27.4 | 28.8 | 25.6 | 18.8 |
| Cost of materials (dollars) [2] | 12.07 | 5.31 | 7.75 | 12.51 | 13.32 | 17.19 |
| Prime costs (dollars) [3] | 13.84 | 5.82 | 8.42 | 13.29 | 14.08 | 18.04 |
| Value of products (dollars) | 15.44 | 6.51 | 9.27 | 14.78 | 15.99 | 20.01 |
| Value added by manufacture (dollars) | 2.37 | 1.20 | 1.52 | 2.27 | 2.67 | 2.82 |
| Value of products minus prime costs (dollars) | 1.60 | .69 | .85 | 1.49 | 1.91 | 1.97 |
| Electric energy used (kw.-hr.) | 11.83 | 3.14 | 5.56 | 10.82 | 11.77 | 17.11 |

[1] Source: U. S. Bureau of the Census and U. S. Bureau of Labor Statistics. Census of Manufactures, 1937: Man-Hour Statistics for Selected Industries. Information relates only to establishments reporting satisfactory data on number of man-hours worked during each month of the year. The Census of Manufactures for 1937 covered 2,238 establishments with 26,390 wage earners. The total number of establishments covered, by size, is shown in table 5.

[2] Includes the cost of materials actually used in manufacture, the cost of supplies and containers for products, fuel, purchased electric energy, and contract work.

[3] The sum of wages, salaries, and cost of materials.

The direct relationship between plant size and the efficiency of labor utilization is graphically illustrated by man-hour statistics compiled from data collected by the 1937 Census of Manufactures (table 4). These data show that in 1937 the ratio of electric energy used (measured in kilowatt-hours) to man-hours of labor was approximately 5.5 times as great in plants with 101 to 2,500 workers [6] as in plants

[6] All but 1 of the 42 plants in this size class reported less than 500 wage earners.

employing 1 to 5 wage earners. Per wage-earner man-hour, the cost of materials was 3.2 times as great in the largest as in the smallest establishments, the value of products about 3 times as great, and the value added by manufacture 2.3 times as great. The value of products minus prime costs,[7] which represents the nearest approach to operating revenue obtainable from data collected in the Census of Manufactures, was about 2.8 times as great per man-hour in plants with more than 100 wage earners as in those with less than 6 wage earners.

Earnings per man-hour are also directly related to size of plant, but wage earners obtain less advantage than the manufacturer from an increase in plant size. In 1937, average wage earnings per man-hour were less than twice as high in the largest as in the smallest plants, ranging down from 65.8 cents to 35.9 cents.

There was a tremendous decrease in the number of small milling establishments between the end of the first World War and the early thirties. The total number of mills in the industry reporting products valued at $5,000 or more declined from 6,485 in 1921 to 1,932 in 1933, but this was mostly due to a drop from 5,417 to 1,251 in the number employing less than 6 wage earners (table 5). At the same time, the very large mills contributed a progressively greater share of the total output of the industry (table 6). The proportion of the total value of products derived from establishments with products valued at $1,000,000 or more was 20 percent greater in 1937 than in 1921, while the proportion from mills producing less than $100,000 was more than 50 percent lower.

TABLE 5.—*Establishments in Flour and Other Grain-Mill-Products Industry, by Number of Wage Earners Employed, for Selected Years, 1919–37* [1]

| Year | All establishments | Establishments by number of wage earners employed | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | None | 1–5 | 6–20 | 21–50 | 51–100 | 101–250 | 251–500 | 501 or more |
| 1919 | 10,708 | 3,181 | 6,220 | 922 | 251 | 82 | 42 | 7 | 3 |
| 1921 | 6,485 | 901 | 4,516 | 763 | 201 | 71 | 28 | 2 | 3 |
| 1923 | 5,232 | 532 | 3,644 | 741 | 198 | 80 | 30 | 4 | 3 |
| 1929 | 4,022 | 265 | 3,010 | 475 | 178 | 56 | 32 | 4 | 2 |
| 1933 | 1,932 | 56 | 1,195 | 425 | 158 | 67 | 26 | 3 | 2 |
| 1935 | 2,193 | 111 | 1,357 | 437 | 172 | 70 | 39 | 5 | 2 |
| 1937 | 2,238 | 140 | 1,359 | 439 | 177 | 78 | 40 | 4 | 1 |

[1] Source: U. S. Census of Manufactures. Since 1921, only establishments with a value of products of $5,000 or more have been included; in 1919, establishments with a value of products of $500 or more were included. There were 1,499 establishments in 1919 with a value of products between $500 and $5,000. The change in coverage thus accounts for a considerable part of the decline in the number of small plants between 1919 and 1921. These 1,499 plants had products valued at only about $4 million, however, while the value of products for the industry as a whole, in 1919, amounted to more than $2,052 million.

The lesser efficiency of labor utilization in the smaller mills has not been the only factor contributing to their decline in importance. The following also have been significant: the tendency toward concentration of ownership and control of flour mills; a similar tendency in

[7] Prime costs include wages, salaries, and material costs.

the case of bakeries; and the shift in the geographic location of the important milling centers.

TABLE 6.—*Establishments in Flour and Other Grain-Mill-Products Industry by Value of Products, and Total Value of Product by Classes, 1921, 1929, and 1937* [1]

| Establishments with products valued at— | Number of establishments | | | Percent of total value of products | | |
|---|---|---|---|---|---|---|
| | 1921 | 1929 | 1937 | 1921 | 1929 | 1937 |
| Total | 6,485 | 4,022 | 2,238 | 100.0 | 100.0 | 100.0 |
| $5,000–$19,999 | 2,840 | 1,818 | 749 | 2.8 | 1.8 | 1.0 |
| $20,000–$99,999 | 2,464 | 1,316 | 798 | 8.9 | 5.7 | 4.2 |
| $100,000–$499,999 | 754 | 504 | 385 | 13.9 | 10.7 | 10.5 |
| $500,000–$999,999 | 199 | 152 | 110 | 12.1 | 10.3 | 9.4 |
| $1,000,000 and over | 228 | 232 | 196 | 62.3 | 71.5 | 74.9 |

[1] Source: U. S. Census of Manufactures.

Concentration of control has been growing since the beginning of the century. This has undoubtedly led to the shutdown of some of the smaller mills.

It is estimated that in 1921, by which time considerable corporate consolidation had already taken place, five large companies were milling about 23 percent of the country's total output of flour. Eight companies had 27 percent. These figures may be compared with those of 1935, when three companies milled 29 percent of the total production, of which the largest single company had more than half. [8]

Centralization of baking facilities has meant that the large flour mills have received an increasing share of the market, since the large corporations generally buy their flour in large quantities on single orders. When most bakeries were small, a much greater number of flour mills enjoyed some bakery business. [9] Improvements in both truck and rail transportation have probably contributed to this change.

During the twenties there was a marked decline of the flour-milling industry in the Northwest and a corresponding increase of production at Buffalo and at Kansas City and other milling points in Kansas and Oklahoma. The transfer from Minneapolis and other northwestern centers to Buffalo was primarily due to modifications of the freight-rate structure that gave Buffalo substantial advantages. The transfer to the Southwest, on the other hand, was caused in large part by the fact that mills there had the advantage of an expanding wheat area and an improving quality of wheat, while the reverse was true of mills in the Northwest. [10] These shifts in location of milling centers meant that new mills, and in many cases large mills, with attendant

[8] Temporary National Economic Committee. Monograph No. 35; Large-Scale Organizations in the Food Industries. Washington, 1940, P. 39. Based on Federal Trade Commission, Agricultural Income Inquiry, 1937, pt. I, ch. IV.

[9] National Youth Administration in Kansas. Industry Study No. 1: The Milling Industry in Kansas. Topeka, 1940.

[10] Pickett, Victor G., and Vaile, Roland S.: The Decline of Northwestern Flour Milling. Minneapolis, University of Minnesota Press, 1933.

advantages in terms of productivity, were constructed and put into operation.

The increase between 1919 and 1940 in the productivity of the flour-milling industry as a whole thus appears to be due mainly to the increasing share of total output produced by the larger and newer mills, which are able to utilize their labor force more efficiently.

In view of the long-term increase in productivity, the reasons for the reversal of the general upward movement between 1931 and 1937 are of special interest. One fact stands out immediately. During this period, contrary to the earlier trend, the number of small plants in the flour-milling industry increased. Although information on plant size is not available for 1931, the data show a slight increase in the number of small mills from 1933 to 1935 and again from 1935 to 1937 (table 5). It seems probable that neither the employment nor the production in these mills was of sufficient importance materially to decrease productivity for the industry as a whole. Nevertheless, the mere discontinuance of the rapid decline in number of small plants and the corresponding shift of production from small to large mills probably sufficed to interrupt the trend toward increasing productivity.

During the depression, American families tended to curtail their purchases of commercially baked goods in favor of the less expensive home baking. This resulted in an increase in the relative amount of flour that had to be packaged in small containers (table 7). A large proportion of the workers in flour-milling establishments are employed in packaging. Moreover, labor requirements are relatively greater the smaller the unit in which the flour is packaged. While automatic packaging machines have been developed, they have generally been found economical only in the largest mills. The shift to smaller-sized packages may thus have contributed to the productivity decline between 1931 and 1937. At the same time, with purchases by commercial bakeries and exports abroad both declining, the flour millers devoted more attention than previously to specialization in type of flour and more elaborate packaging.

TABLE 7.—*Percentage of Barrels of Flour Packaged, by Size of Container, 1931 and 1934*[1]

| Size of container | 1931 | 1934 |
|---|---|---|
| Under 5 pounds | 0.3 | 1.3 |
| 5 to 25 pounds | 25.1 | 26.9 |
| 48 to 50 pounds | 15.8 | 17.5 |
| 96 to 120 pounds | 36.4 | 35.4 |
| 132½ to 140 pounds | 20.5 | 15.8 |
| 196 to 200 pounds | 1.9 | 3.1 |
| Total | 100.0 | 100.0 |

[1] Source: Adapted from two mimeographed reports of the U. S. Bureau of Agricultural Economics: Use of Cotton Bags and Other Containers in Flour Mills of the United States, Washington, D. C., July 1932 and February 1938.

Finally, production of flour and other grain-mill products was smaller between 1932 and 1937 than at any other time since 1919. As might be expected, therefore, operations represented a relatively small percentage of capacity, averaging for wheat flour about 51 percent from 1932 through 1935 as compared with about 56 percent during the years 1928–31 and nearly 59 percent in 1939.[11]

## *Employment Prospects*

While it is said that there is considerable room for improvement in mill design and machinery,[12] any changes that may be made in the near future are likely to be minor in nature, as has been true during the last 20 years. The milling equipment in use today is largely automatic even in the smaller establishments. The only prospect for important reductions in labor requirements appears to lie in the development of automatic packaging machinery suitable for use in small plants. Because of their large capacity, the types available today are not economical except in the larger establishments. Moreover, it seems probable that any increase in the capacity of the industry as a whole will result mainly from enlargement of existing mills rather than from construction of new mills.[13] Consequently, improvements in labor productivity stemming from changes in the mechanical equipment used by the industry are not likely to have an important influence on employment in the next few years.

The rapid shift in output from small to large plants occurred mainly during the twenties; it was an important factor contributing to the increase in labor productivity during that period. There is reason to believe, however, that the majority of the small mills in the industry that have thus far survived the competition of large establishments will probably continue to operate. Many of these small mills have been able to maintain local business because of certain factors which accrue to their advantage:

> Since the ownership and operation of the mill is in a single family, wages are taken in the form of profits. Often profits are small, it is true, but excessive pay rolls are thereby eliminated, and the cash outlay reduced. There is little expense during dull seasons, while the expenses of large mills remain about the same.[14]

Some further concentration of production may take place, but an important reduction in employment from this cause in the near future appears unlikely.

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[11] U. S. Bureau of Foreign and Domestic Commerce. Survey of Current Business. 1940 Supplement, p. 108.

[12] National Youth Administration in Kansas. Industry Study No. 1: The Milling Industry in Kansas. Topeka, 1940, pp. 50–51.

[13] The Northwestern Miller, July 1937, vol. 191, No. 3, sec. 3. Editorial note.

[14] National Youth Administration in Kansas. Industry Study No. 1: The Milling Industry in Kansas. Topeka, 1940, p. 12.

Modifications in the type or quality of the products manufactured by an industry may affect employment. This has not been an important factor in the milling industry; there has been comparatively little alteration in the quality or the relative importance of its products in the last 20 years. The present program of the industry to market a flour enriched by the addition of certain nutrients [15] may slightly affect labor requirements, but the consequences to employment are likely to be of no great significance.

Employment opportunities are also contingent on total activity. Demand for the staple food items produced by the milling industry is usually relatively stable (table 2). Activity may be reduced by curtailed consumer buying power during periods of general depression, but the milling industry is much less sensitive to such conditions than most manufacturing industries.

As a matter of fact, a part of the decline in production during the thirties may be attributed to a reduction in foreign trade. Exports of wheat flour, amounting to 13.7 million barrels in 1929 (11 percent of total production), dropped to 3.4 million barrels in 1935 (3 percent of total production). A gradual rise in wheat flour exports after 1935 to 7.7 million barrels in 1939 was followed by a decline to 5.8 million barrels in 1940.[16]

Assuming no sharp reduction in consumer buying power, it seems that domestic consumption of the products of the milling industry is likely to change but slightly in the near future. Some minor fluctuations in total production may follow changes in the world situation which will permit larger exports or which will still further reduce the present small foreign trade in mill products. In final summary, it appears unlikely that changes in labor productivity, type of products manufactured, or total production level will be of sufficient magnitude significantly to affect employment totals in the milling industry in the next few years.

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[15] See Wheat Flour Institute, Enriched Flour; What It is; Why It Is Important (pamphlet); and recent issues of The Northwestern Miller.

[16] U. S. Bureau of Foreign and Domestic Commerce. Monthly Summary of Foreign Commerce of the United States. Washington, December 1929, 1935, 1939, and 1940.

# HAND AND MACHINE PRODUCTION OF CIGARS IN 1940 [1]

A RECENT survey of the cigar-manufacturing industry by the Bureau of Labor Statistics makes available for the first time a distribution of the cigars produced in the United States according to the methods used in their manufacture and the type of filler employed. The results also show the proportions of cigars which are sold at less than 5 cents each and at exactly 5 cents each, data which have previously not been available.

The survey indicates that more than three-quarters of all cigars manufactured in the United States are produced on cigar machines (table 1). Hand-made-cigar production comprises less than one-fifth of the total. The small remainder is made by a combination method of manufacture whereby the filler is wrapped in a binder leaf by machine, and the finishing wrapper leaf is applied by hand.

Short-filler cigars constitute a strikingly large proportion of total production, only 4 percent less than half. This represents the consequence of a long and steady increase in the relative importance of short-filler cigars.

TABLE 1.—*Estimated Percentage Distribution of Cigars Manufactured in the United States, by Price Class, Method of Production, and Type of Filler, 1940* [1]

| Method of production and type of filler | Retail price class | | | Total, all price classes |
|---|---|---|---|---|
| | Less than 5 cents each | 5 cents each | More than 5 cents each | |
| Total | 41.7 | 47.5 | 10.8 | 100.0 |
| Total long filler | 6.7 | 37.2 | 10.2 | 54.1 |
| Total short filler | 35.0 | 10.3 | .6 | 45.9 |
| Hand-made | 4.2 | 6.9 | 7.8 | 18.9 |
| Long filler | 2.2 | 3.9 | 7.7 | 13.8 |
| Short filler | 2.0 | 3.0 | .1 | 5.1 |
| Machine made | 37.1 | 37.4 | 2.5 | 77.0 |
| Long filler | 4.5 | 33.0 | 2.4 | 39.9 |
| Short filler | 32.6 | 4.4 | .1 | 37.1 |
| Machine bunched, hand rolled | .4 | 3.2 | .5 | 4.1 |
| Long filler | | .3 | .1 | .4 |
| Short filler | .4 | 2.9 | .4 | 3.7 |

[1] Figures presented are preliminary and subject to minor revision.

It has been known from reports of the Bureau of Internal Revenue that about 90 percent of all cigars produced in the United States are

[1] Prepared by Duane Evans, Chief, Productivity and Technological Developments Division, and Sidney C. Sufrin, Industrial Economist, Wage and Hour Statistics Division, Bureau of Labor Statistics.

manufactured to sell for 5 cents or less, but a classification by price class within this large group has not been available. The data presented in table 1 show that in 1940 cigars selling at exactly 5 cents each constituted almost half the total production (47.5 percent). Cheaper cigars were only slightly less important and comprised more than two-fifths of the total output of the industry (41.7 percent).

The most important single class of cigars produced today is the 5-cent long-filler machine-made product, and only slightly less important is the group comprising short-filler machine-made cigars retailing for less than 5 cents. Each of these classes makes up almost exactly one-third of total cigar production. The only other category accounting for as much as 5 percent of the total production includes long-filler hand-made cigars retailing at more than 5 cents each. The three groups together comprise more than three-fourths of all cigar production.

These figures command special interest because the cigar industry has presented such a clear and definite picture of the results of mechanization. The change in techniques in this industry has principally involved one process only, the actual cigar-making operation. The importance of the change in manufacturing methods may be seen from the fact that about three-quarters of all workers employed in a hand factory are skilled hand cigar makers. The use of cigar machines reduces the amount of labor required in the cigar-making operation itself by about 60 percent in the case of long-filler cigars, and by an even greater amount in the case of short-filler cigars.[2] Moreover, in the change, skilled hand craftsmen are replaced by machine operators, usually young women who qualify for the job without extended training.

Cigar machines first became available about 1919 but their installation was not rapid for a few years. It was at first believed that the public would not willingly accept a machine-made cigar in place of the hand-made product. The economies in labor costs made possible by the machines nevertheless resulted in their adoption in an increasing number of plants, and the proportion of machine-made cigars steadily increased.

Cigar machines are adapted only to large factory operation. Consequently, their increasing use has been accompanied by a steady rise in concentration of manufacture and a steady diminution in the importance of small factories. In 1921, only 11 cigar factories had an annual output of 40 million or more cigars each, and these collectively contributed only 15.7 percent of the industry's total production. By 1939, there were 32 such establishments and together they produced 67.4 percent of the total output of the industry. Conversely, the

[2] U. S. Bureau of Labor Statistics Bull. No. 660: Mechanization and Productivity of Labor in the Cigar Manufacturing Industry, by Duane Evans, Washington, 1939, pp. 34, 35.

number of establishments producing less than one-half million cigars annually dropped from 13,149 in 1921 to 4,121 in 1939, and the proportion of the industry's total output held by these establishments dropped from 13.7 percent to only 3.8 percent.[3]

Cigar machines have been used to the largest extent in making cheaper cigars, i. e., those retailing for 5 cents or less. The economies made possible by machine use, together with the extra sales efforts of the larger companies using machines, have resulted in a steady increase in the proportion of cheaper cigars to all cigars manufactured. Cigars selling at 5 cents or less each constituted only 30 percent of all cigars made in 1921. By 1929 the proportion had risen to 55 percent, and in recent years it has been in the neighborhood of 90 percent.

During the same period that mechanization was increasing, total cigar production was declining. Cigar production was at its peak in 1920 at slightly over 8 billion cigars annually. Between 1921 and 1929 annual production fluctuated between 6 and 7 millions. The depression years after 1929 brought a sharp decrease in cigar production to a low of 4.3 billions in 1933. Some recovery took place after this date, and since 1936 annual production has varied between 5 and 5½ billions.

Declining production and increasing mechanization brought about a steady decline in employment. The industry employed 112,000 workers in 1921. By 1929 the number was reduced to 84,000 and by 1939 to 51,000.[4] At the same time the earnings of the skilled hand workers, who faced displacement and a labor market with little use for their skill, declined steadily.

The manufacture of higher-priced cigars has proved most resistant to the inroads of mechanical means of manufacture. In this field, the standards of quality made possible by the use of experienced craftsmen are more important than in the lower-priced classes, where price itself is an important phase in selling appeal and the economies offered by mechanized operation assume greater significance. It is interesting to observe, therefore, that while more than three-fourths of all cigars are produced by machine, about three-fourths of all cigars selling for more than 5 cents each are still made by hand.

About 11 percent of total production consists of hand-made cigars selling for 5 cents or less each. This type of manufacture is especially subject to mechanization and here a further replacement of hand methods by mechanized techniques may be expected to take place. However, there is no reason to expect that this will take place rapidly.

In the first place, much of this production is contributed by very small plants using one to five workers each. Such small shops are frequently found in the major cities; in many the proprietor is the

[3] Data in this and the following two paragraphs from annual reports of the Commissioner of Internal Revenue, various years.

[4] Census of Manufactures.

sole worker. Three factors contribute to the persistence of such shops: many of them have created a continued local demand for their output; the investment required is small and overhead costs are not heavy; in many cases wages may vary flexibly with profits, especially in owner-operated establishments.

Another part of the lower-priced hand-made production is carried on in factories which specialize in the manufacture of higher-priced hand-made cigars. In the case of short-filler cigars, this method of operation provides an outlet for the scraps and cuttings produced in the manufacture of the higher grade product. It may, in effect, be regarded as a byproduct of the manufacture of the more expensive cigars and expected to continue along with it.

The industry is in any case nearing the end of its change from a handicraft to a mechanized form of operation. Some further mechanization may be expected to occur, and there will also be improvements in the mechanical equipment now used by the industry. Nevertheless, future rapid displacement of workers similar to what has occurred in the past probably will not take place.

The survey which provided the material for table 1 was designed primarily to collect data showing the present wage structure of the cigar industry. A detailed analysis of the results will be made in a later publication by the Bureau of Labor Statistics. Among other features, this report will analyze the relationships between earnings of workers and the price class, method of manufacture, and type of filler of the cigars in whose production they are engaged.

## DEBT OF BRITISH UNEMPLOYMENT-INSURANCE FUND PAID OFF

THE debt of the British unemployment-insurance fund was completely wiped out at the end of March 1941 by the payment of approximately £38,500,000 from the surplus in the fund.[1] This payment left a balance in the fund of about £16,500,000 and it was estimated that by the end of the present year, if the war continues, the surplus will amount to approximately £55,000,000. At the time the Unemployment Insurance Statutory Committee was appointed in 1934, the debt of the unemployment fund was £105,780,000 and at that time it was planned that by means of a debt charge of £5,000,000 a year the principal and interest would be repaid and the debt extinguished in 1971. However, events have made it possible to anticipate this date by 30 years. In recommending that part of the balance in the fund should be devoted to the extinction of the debt, the Committee expressed the hope that it will be possible to build up such reserves that it will not be necessary to exercise the powers of reborrowing. The liquidation of the debt resulted in a net immediate gain to the fund since the debt charges were larger than the interest which could be earned if the money was invested.

### *Condition of Fund in 1940*

The report [2] on the financial condition of the unemployment-insurance fund for the calendar year 1940 showed balances of £54,534,577 in the general account of the fund, and of £3,858,294 in the agricultural account. The receipts for the year in the general account were £67,103,454, of which all but £31,412 represented contributions by employers, employees, and the State; the corresponding figures for the agricultural account were £1,252,575 and £27,520. Expenditures for unemployment benefits during the year from the general account amounted to £25,894,000, and for administration, debt service, and minor items to £7,230,099. The excess of income over expenditure, therefore, was £33,979,355. The balance on December 31, 1939, was £57,555,222, but from this amount £37,000,000 was subsequently

[1] London, The Economist, April, 1941.

[2] Great Britain. Unemployment Insurance Statutory Committee. Reports on the Financial Condition of the Unemployment Fund (General and Agricultural Accounts) as at December 31, 1940. London, 1941.

applied toward the reduction of the debt of the fund. The cost of unemployment benefits for agricultural workers was £635,000 and the expenditure for administrative and minor items £156,503. During 1940 income exceeded expenditure by £461,072.

The following table shows the approximate receipts and payments of the general and agricultural accounts of the unemployment-insurance fund, for the years 1939 and 1940, prepared by the Unemployment Insurance Statutory Committee. The statement includes figures taken from accounting and other records which had not, at the time of publication, been subjected to examination and audit.

***Receipts and Expenditures of British Unemployment-Insurance Fund, Years Ending December 31, 1939 and 1940***

| Item | General account | | Agricultural account | |
|---|---|---|---|---|
| | 1939 | 1940 | 1939 | 1940 |
| *Receipts* | | | | |
| Total receipts | £67,283,926 | £67,103,454 | £1,664,911 | £1,252,575 |
| Contributions from— | | | | |
| Employers and workers | 43,799,457 | 44,721,061 | 1,060,330 | 817,032 |
| Defense departments in respect of men discharged from H. M. forces | 218,475 | | | |
| Exchequer | 21,982,157 | 22,350,981 | 524,802 | 408,023 |
| Interest on investments | 1,272,798 | 15,291 | 79,520 | 27,286 |
| Miscellaneous receipts | 11,039 | 16,120 | 239 | 234 |
| *Expenditures* | | | | |
| Total expenditures | £67,283,926 | £67,103,454 | £1,664,911 | £1,252,575 |
| Unemployment benefit | 40,690,000 | 25,894,000 | 831,000 | 635,000 |
| Refunds on contributions in respect of noninsurable employment | 53,617 | 19,099 | 2,675 | 985 |
| Repayments in respect of yearly and half-yearly hirings | | | 8,050 | |
| Grants for authorized courses of instruction | 415,000 | 365,500 | 3,000 | 2,500 |
| Grants toward traveling expenses of insured persons seeking employment | 14,693 | 15,575 | 34 | 9 |
| Administrative expenses | 5,608,782 | 4,370,540 | 196,801 | 153,009 |
| Debt service | 3,900,700 | 2,459,385 | | |
| Excess of receipts over payments | 16,601,578 | 33,979,355 | 623,351 | 461,072 |
| Applied towards reduction of debt on March 30, 1940 | | 37,000,000 | | |
| Balance on December 31 | 57,555,222 | 54,534,577 | 3,337,222 | 3,858,294 |

## *General Account*

The contributions from employers and employed persons showed an increase of £921,704 in 1940 over the preceding year. This small increase was said to be the net result of one cause tending to a decrease, that is, the withdrawal of men into the fighting forces, and of two causes tending to an increase, namely, the decline of unemployment and the 1940 amendments to the Unemployment Insurance Acts which raised the rate of contribution and brought into the system nonmanual workers with incomes ranging from £250 to £420 a year. Since the Exchequer contribution is proportionate to the increase in contributions from other sources, this contribution showed a small

increase of £368,824. Taking all items together there was little difference in the income of the fund in 1939 and 1940.

Reduction of unemployment during the year resulted in a decrease in the expenditure on benefit of £14,796,000 although it is stated that the expenditure of nearly £26,000,000 on unemployment benefit in a year of war and intense industrial activity is high enough to be surprising. Of the exact total of £25,894,000, £15,360,000 was paid out in the first 6 months, and £10,534,000 in the last 6 months, of 1940. This expenditure covers only about 55 percent of the total recorded unemployment in that year.

Representations regarding the disposal of the surplus in the fund at the end of 1940 were made by the British Employers' Confederation, the Trades Union Congress, and the Parliamentary Committee of the Cooperative Congress. The employers' organization believed that in view of the probable credit balance at the end of 1941 of £55,000,000 and a still further rise in the balance if the war continued into 1942, there would be a demand for increased benefits in spite of the fact that the surpluses have been accumulated only through maintaining contributions at their highest level while unemployment was declining. Instead of an increase in benefits, which would tend to become permanent once it was granted, the Confederation advocated the allocation of £15,000,000 of the accumulated surplus, toward a reduction of 2d. each in the contribution of the employer, the employee, and the State.

The representatives of the Trades Union Congress recommended especially the abolition of the 3-day waiting period for the payment of benefits, and abolition of the Anomalies Regulations in respect of married women. These two demands were related particularly to war conditions. In connection with abolition of the waiting period, which has been the subject of continual protests by contributors, a special case for consideration was said to be the position of workpeople deprived suddenly and unexpectedly of their employment by aerial attack. The regulations affecting married women, it was considered, should be abolished, since if married women during the war were called upon to enter insurable employment, they should not be liable to suffer after the war the loss of unemployment benefits to which they would be entitled if they were not married. The Congress also called for abolition of the continuity rule and an all-round increase in benefits, including payments to juveniles aged 14–16.

In considering these arguments the committee reviewed the report of the preceding year, in which it was held that no part of the balance held by the unemployment fund at the end of 1939 could be regarded as a disposable surplus. This conclusion was based on the expectation that the end of the present war would be followed, as in the case of the last war, by severe unemployment. It is believed that the burden on the unemployment fund will be even greater after the present war,

because in addition to the industrial dislocation common to both wars, there is in this war an even greater regional dislocation, resulting from high concentration of activity in certain areas and transference to those areas of large numbers of workpeople whose homes and regular workplaces remain elsewhere. Since it cannot be known how soon the war will end or how rapidly after the war unemployment will rise and begin to drain the reserves of the unemployment fund, it was felt by the committee that reserves should be built up as rapidly as possible and that the balance in the fund could not be regarded, therefore, as a disposable surplus. In regard to the abolition of the waiting period and continuity rule urged by the Trades Union Congress, the committee was of the opinion that these provisions could be modified under the provisions of the 1939 act in favor of persons thrown out of employment by direct enemy action. This, it was said, would be a recognition of the special circumstances of the war, and if limited to the consequences of direct enemy action, would not prejudice treatment of the general problem of waiting time. Such modifications would automatically come to an end at the end of the war.

In concluding the report regarding the general account, the committee recommended that an amount of £38,587,007 10s. standing to the credit of this account in the unemployment fund should be applied to a complete discharge of the liabilities of the fund. As stated above this action was taken at the end of March 1941.

### *Agricultural Account*

Contributions to the agricultural account by employers and workpeople showed a decrease of £243,298 in 1940 as compared with 1939, due in part to changes in the contribution rate and in part to a reduction in the number of insured persons. The expenditure on agricultural benefit was £635,000, as compared with £831,000 in 1939. This reduction of £196,000 reflects both the decrease in the numbers insured and a reduction in unemployment.

Representations presented by the National Farmers' Union in England and the National Farmers' Union and the Chamber of Agriculture of Scotland did not advocate any changes in the present agricultural insurance scheme, but the Trades Union Congress recommended abolition of the 3-day waiting period and the continuity rule and an increase in benefits, including payment of benefit to juveniles aged 14–16. The committee did not recommend action on these points, but suggested that an inquiry should be made into the waiting period and the Anomalies Regulations.

The high rates of unemployment among women and girls and the small percentage of unemployment in the industry that ranks for benefit have been noted in a number of the annual reports. These

conditions were present in the past year. The percentages of unemployment among women and girls were about 8 times those for men and boys. The percentage of unemployment ranking for benefit was slightly higher in 1940 than in 1939; however, the rate is still much below the 70 percent which has been suggested as reasonable in an industry having as low a rate of unemployment as is normal in agriculture. The war has not had as beneficial an effect on the agricultural account as on the general account. In 1940 the expenditure from the general account was only 49 percent of income, while the expenditure from the agricultural account amounted to 63 percent. It is considered probable that with the industrial dislocation after the war, expenditure on agricultural benefit will rise disproportionately, and the committee considered, therefore, that no part of the excess of income over expenditure in the agricultural account should be regarded as a disposable surplus.

## PLACEMENT WORK OF PUBLIC EMPLOYMENT SERVICES, APRIL 1941 [1]

PLACEMENTS in April totaled 443,000, the largest number since June 1936. This total represented a gain of 18 percent over March and of 50 percent over April 1940. Furthermore, although the registration campaign had been in progress two weeks, the number of persons actively seeking work through public employment offices at the end of April decreased slightly from the previous month, but remained near the January 1941 level. This indicates that removals from the active file due to cancelations or placements were greater than the number of new or renewed registrations.

Of the 443,000 placements made in April, some 267,000, or 60 percent, were expected to last longer than a month. This is the lowest proportion of regular placements made in 1941. Although the decline in the proportion of regular jobs this month was much larger than has been usually experienced in similar past periods, the proportion is above those of preceding years.

Every State except Arizona, Arkansas, Florida, Louisiana, Missouri, and North Carolina reported increased placements over March. In these six States, defense construction projects, now completed, had provided opportunities for thousands of placements in previous months. Placements in Montana doubled those made in March. Gains of over 60 percent also occurred in Alaska, Minnesota, Nebraska, North Dakota, and South Dakota. Substantial increases were reported by most of the remaining States. Practically all States filled more jobs this April than last, with the largest relative gains

[1] Prepared by Research and Statistics Division, Bureau of Employment Security, Social Security Board.

taking place in Maine, Massachusetts, New York, North Carolina, Rhode Island, and Virginia, where placements were from two to four times as great as those made last April.

Supplementary placements declined 18 percent from March, to 46,000, the lowest volume since April 1940. The decrease is unusual for this season of the year and arises from the slackening in such placements on defense construction projects.

In April, 274,000 jobs were filled by men and 170,000 by women. Placements of men were 56 percent greater than those made in April 1940, and placements of women were 43 percent greater. The increase for men was the smallest this year, that for women was the largest. As in March, approximately two-thirds of the jobs filled by men and more than half of the jobs filled by women were expected to last longer than a month. Placements of men and of women were higher than in April 1940 in all but 7 States. In Delaware, New Jersey, and New York, a greater number of women were placed in jobs than of men.

The Nation-wide campaign to induce workers to register at public employment offices was partly reflected in a 14-percent increase in applications over March. More than 1.8 million applications for jobs were received in April. This figure represents the highest April total in the history of the United States Employment Service. The slight drop in the active file from 5.2 to 5.1 million was due to increased placements and to removal from the files of the registrations of applicants who had not been in employment offices since March 1. Of the 36 States having fewer numbers of registrants this April than last, Connecticut, Hawaii, Maryland, Vermont, and Washington showed the largest reductions—in each case more than 40 percent.

Approximately 1.3 million applications for work were filed by men, a 23-percent increase over April 1940, while the 544,000 filed by women represented an increase of 15 percent. At the end of April, the active file of men was 11 percent lower than in April 1940, and that of women was 9 percent lower. In 38 States the number of male jobseekers registered this month was lower than in April 1940, and women registrants were fewer in 31 States.

With the growing emphasis on "jobs for men over 40" it is appropriate to glance at the record made in placing older workers. Placements of these workers in the first quarter of the year were well above the comparable quarters of 1939 and 1940. More than 124,000 placements, or 19 percent of all jobs filled by men during January–March 1941, involved workers 45 years of age and over. This represented an increase of 84 percent over such placements in January–March 1940 and a 45 percent gain over January–March 1939, and contrasts with gains of 62 percent and 59 percent for all placements between the corresponding periods. Although the number of male

placements in the older age groups increased, the proportion remained practically unchanged during the last 2 years. Evidently, while the lifting of age restrictions has provided job opportunities to older workers from which they were previously barred, it has not yet resulted in older workers obtaining a larger share of the jobs.

TABLE 1.—*Summary of Placement Activities of Public Employment Services, April 1941*

[Data reported by State agencies, corrected to May 23, 1941]

| Activity | Number | Percent of change from— | | |
|---|---|---|---|---|
| | | March 1941 | April 1940 | April 1939 |
| Total complete placements | 443,186 | +17.8 | +50.5 | +63.8 |
| Regular | 266,747 | +8.8 | +73.2 | +72.4 |
| Temporary | 176,439 | +34.5 | +25.6 | +52.4 |
| Supplemental placements | 45,817 | −13.8 | +1.8 | +7.7 |
| Total applications | 1,825,010 | +13.6 | +20.5 | +55.6 |
| New applications | 786,213 | +10.1 | +57.3 | +64.4 |
| Active file | 5,096,841 | −1.4 | −10.3 | −22.1 |

TABLE 2.—*Summary of Placement Activities for Veterans, April 1941*

[Data reported by State agencies, corrected to May 23, 1941]

| Activity | Number | Percent of change from— | | |
|---|---|---|---|---|
| | | March 1941 | April 1940 | April 1939 |
| Total complete placements | 15,226 | +25.9 | +37.7 | +18.8 |
| Regular | 8,230 | +21.6 | (1) | (1) |
| Temporary | 6,996 | +31.4 | (1) | (1) |
| Total applications | 68,632 | −.1 | +31.3 | +43.9 |
| Active file | 245,609 | −2.5 | −2.5 | −31.2 |

[1] Total veteran placements by duration not reported prior to 1941.

TABLE 3.—*Activities of Public Employment Services, All Registrants, by States, April 1941*
[Data reported by State agencies, corrected to May 23, 1941]

| Social Security Board region and State | Complete placements | | | | | | Supplementary placements | Applications received | | Active file as of Apr. 30, 1941 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | April 1941 | | | | January–April 1941 | | | | | | |
| | Total | Percent of change from— | | Regular (over 1 month) | Total | Percent of change from January–April 1940 | | Total | New | Number | Percent of change from Apr. 30, 1940 |
| | | March 1941 | April 1940 | | | | | | | | |
| Total | 443,186 | +17.8 | +50.5 | 266,747 | 1,526,992 | +58.7 | 45,817 | 1,825,010 | 786,213 | 5,096,841 | −10.3 |
| Region I: | | | | | | | | | | | |
| Connecticut | 9,495 | +22.8 | +82.8 | 6,850 | 31,494 | +89.8 | 89 | 21,711 | 8,314 | 41,895 | −49.5 |
| Maine | 3,828 | +27.8 | +185.4 | 3,257 | 10,603 | +110.2 | 91 | 11,625 | 3,573 | 35,085 | −25.8 |
| Massachusetts | 9,467 | +27.6 | +177.4 | 7,740 | 29,262 | +126.2 | 90 | 60,199 | 24,685 | 172,290 | −9.3 |
| New Hampshire | 1,907 | +38.4 | +38.4 | 1,341 | 6,673 | +12.5 | 111 | 6,501 | 1,751 | 17,081 | −31.5 |
| Rhode Island | 2,440 | +26.8 | +256.2 | 1,976 | 7,776 | +207.7 | 0 | 12,112 | 6,612 | 43,378 | +10.0 |
| Vermont | 1,208 | +39.2 | +63.5 | 636 | 3,717 | +43.0 | 24 | 3,002 | 1,399 | 9,607 | −47.7 |
| Region II: | | | | | | | | | | | |
| New York | 48,596 | +27.5 | +115.9 | 25,829 | 153,353 | +87.5 | 1,687 | 284,127 | 113,570 | 576,163 | −15.3 |
| Region III: | | | | | | | | | | | |
| Delaware | 1,560 | +39.2 | +53.4 | 666 | 5,123 | +58.0 | 30 | 2,995 | 967 | 9,935 | −28.6 |
| New Jersey | 15,527 | +2.2 | +77.8 | 9,722 | 54,544 | +59.3 | 31 | 54,743 | 23,129 | 191,496 | −28.3 |
| Pennsylvania | 20,687 | +31.2 | +63.5 | 14,073 | 65,195 | +59.1 | 644 | 134,041 | 46,912 | 339,630 | −4.3 |
| Region IV: | | | | | | | | | | | |
| Dist. of Columbia | 5,854 | +18.6 | +64.8 | 2,721 | 20,028 | +60.4 | 6 | 11,948 | 4,260 | 25,448 | −31.3 |
| Maryland | 6,388 | +18.9 | +86.0 | 4,280 | 20,828 | +80.0 | 1 | 21,641 | 9,664 | 35,796 | −51.9 |
| North Carolina | 14,936 | −28.5 | +134.9 | 11,624 | 84,862 | +277.2 | 2,189 | 35,062 | 16,304 | 74,321 | −14.7 |
| Virginia | 10,939 | +1.2 | +126.6 | 8,215 | 38,816 | +149.0 | 112 | 36,365 | 17,155 | 59,630 | +.6 |
| West Virginia | 4,044 | +15.7 | +55.2 | 2,243 | 13,480 | +51.2 | 268 | 30,954 | 8,231 | 74,289 | −8.2 |
| Region V: | | | | | | | | | | | |
| Kentucky | 4,103 | +58.5 | +49.9 | 2,465 | 12,490 | +56.1 | 77 | 19,581 | 10,673 | 89,826 | −3.2 |
| Michigan | 15,226 | +30.0 | +47.7 | 9,649 | 46,441 | +41.2 | 142 | 59,675 | 25,827 | 178,022 | −28.6 |
| Ohio | 26,861 | +41.0 | +72.9 | 13,730 | 78,718 | +65.1 | 453 | 78,849 | 34,377 | 277,004 | −11.1 |
| Region VI: | | | | | | | | | | | |
| Illinois | 23,962 | +21.4 | +66.6 | 14,029 | 77,133 | +58.8 | 1,453 | 69,807 | 35,139 | 279,937 | +37.2 |
| Indiana | 15,244 | +36.5 | +85.0 | 9,815 | 43,965 | +65.0 | 1,192 | 43,607 | 27,524 | 196,226 | +19.3 |
| Wisconsin | 9,910 | +32.7 | +51.9 | 5,725 | 30,216 | +43.9 | 323 | 26,911 | 11,540 | 102,990 | −15.8 |
| Region VII: | | | | | | | | | | | |
| Alabama | 4,533 | +43.4 | +26.5 | 3,210 | 14,588 | +9.7 | 147 | 39,491 | 20,489 | 114,897 | −7.2 |
| Florida | 4,117 | −23.2 | +47.4 | 2,649 | 27,457 | +123.1 | 108 | 36,150 | 22,713 | 97,532 | +65.0 |
| Georgia | 9,616 | +38.0 | +14.3 | 6,169 | 31,289 | +12.8 | 134 | 36,489 | 18,686 | 107,728 | −25.7 |
| Mississippi | 3,989 | +4.0 | −15.2 | 3,068 | 12,356 | −10.5 | 256 | 39,176 | 19,814 | 68,109 | +27.8 |
| South Carolina | 6,117 | +37.3 | +83.4 | 4,432 | 28,912 | +162.8 | 164 | 20,213 | 10,558 | 49,300 | +13.2 |
| Tennessee | 8,309 | +13.7 | +81.8 | 5,740 | 30,687 | +98.6 | 291 | 30,755 | 21,290 | 129,320 | +8.0 |
| Region VIII: | | | | | | | | | | | |
| Iowa | 8,981 | +29.7 | +23.4 | 4,544 | 25,819 | +18.8 | 820 | 23,036 | 6,633 | 66,506 | −24.6 |
| Minnesota | 7,798 | +79.0 | +46.8 | 4,418 | 20,085 | +31.6 | 327 | 35,806 | 14,043 | 111,885 | −28.7 |
| Nebraska | 3,589 | +64.9 | +7.7 | 2,094 | 8,834 | +8.7 | 67 | 16,605 | 2,966 | 50,997 | +14.1 |
| North Dakota | 2,698 | +64.0 | +19.6 | 1,657 | 6,820 | +29.5 | 23 | 5,778 | 1,980 | 29,215 | −6.2 |
| South Dakota | 1,596 | +62.0 | +12.5 | 850 | 4,200 | +17.3 | 72 | 5,194 | 1,681 | 23,209 | −22.7 |
| Region IX: | | | | | | | | | | | |
| Arkansas | 5,604 | −9.2 | −8.6 | 2,071 | 22,873 | +61.3 | 553 | 19,012 | 10,834 | 61,519 | +17.6 |
| Kansas | 6,848 | +16.1 | +52.1 | 3,008 | 23,107 | +85.1 | 408 | 23,501 | 8,941 | 65,550 | +2.6 |
| Missouri | 12,838 | −15.3 | +35.0 | 7,914 | 56,761 | +115.4 | 1,119 | 71,156 | 21,560 | 217,633 | +19.3 |
| Oklahoma | 4,116 | +12.9 | −44.4 | 1,796 | 13,672 | −23.2 | 2,106 | 23,942 | 10,856 | 64,089 | −30.0 |
| Region X: | | | | | | | | | | | |
| Louisiana | 4,926 | −16.1 | +36.9 | 3,407 | 23,699 | +60.2 | 3,296 | 26,815 | 10,391 | 92,220 | +11.1 |
| New Mexico | 1,391 | +20.8 | −7.8 | 1,034 | 5,473 | +24.9 | 140 | 5,684 | 2,075 | 24,501 | −33.8 |
| Texas | 28,717 | +8.1 | −6.5 | 12,929 | 125,486 | +14.2 | 14,764 | 99,468 | 47,088 | 279,875 | +10.5 |
| Region XI: | | | | | | | | | | | |
| Arizona | 2,412 | −23.5 | −11.0 | 1,210 | 10,391 | −10.1 | 4,644 | 6,462 | 2,492 | 18,115 | −33.4 |
| Colorado | 3,627 | +27.2 | +10.0 | 1,936 | 10,998 | +7.4 | 111 | 18,367 | 6,264 | 59,771 | −9.2 |
| Idaho | 2,686 | +22.9 | +39.3 | 1,581 | 7,136 | +26.6 | 182 | 7,934 | 2,560 | 17,220 | +21.4 |
| Montana | 2,503 | +115.4 | +17.1 | 1,873 | 5,110 | +15.5 | 431 | 6,322 | 2,363 | 20,516 | −32.5 |
| Utah | 1,688 | +21.9 | +58.6 | 931 | 5,440 | +64.2 | 21 | 7,320 | 2,898 | 21,801 | −3.4 |
| Wyoming | 1,077 | +32.3 | +8.8 | 565 | 5,351 | +142.6 | 4 | 3,856 | 1,257 | 7,929 | −20.4 |
| Region XII: | | | | | | | | | | | |
| California | 33,010 | +17.4 | +61.7 | 18,643 | 107,153 | +57.4 | 2,807 | 138,821 | 61,178 | 378,353 | −21.6 |
| Nevada | 1,511 | +3.3 | +16.4 | 956 | 4,743 | +18.9 | 87 | 3,308 | 1,713 | 5,736 | −4.2 |
| Oregon | 7,583 | +9.0 | +60.6 | 5,449 | 25,521 | +63.3 | 1,365 | 18,668 | 9,384 | 33,815 | −29.0 |
| Washington | 7,118 | +29.2 | −11.4 | 4,341 | 21,867 | −5.1 | 2,314 | 26,403 | 9,591 | 42,025 | −58.8 |
| Territories: | | | | | | | | | | | |
| Alaska | 797 | +60.4 | +26.1 | 610 | 2,194 | +17.2 | 40 | 1,476 | 933 | 2,149 | −28.6 |
| Hawaii | 1,209 | +46.5 | +50.4 | 1,076 | 4,244 | +41.2 | 3 | 2,346 | 1,376 | 5,277 | −40.9 |

TABLE 4.—*Activities of Public Employment Services, Veterans, by State, April 1941*

[Data reported by State agencies, corrected to May 23, 1941]

| Social Security Board region and State | Complete placements | | | Total applications received | Active file as of Apr. 30, 1941 | | |
|---|---|---|---|---|---|---|---|
| | Number | Percent of change [1] from— | | | Number | Percent of change from— | |
| | | March 1941 | April 1940 | | | Mar. 31, 1941 | Apr. 30, 1940 |
| Total | 15,226 | +25.9 | +37.7 | 68,632 | 245,609 | −2.5 | −2.5 |
| Region I: | | | | | | | |
| Connecticut | 432 | +45.4 | +68.1 | 806 | 1,880 | −23.0 | −55.3 |
| Maine | 175 | +35.6 | +177.8 | 469 | 2,326 | +12.4 | −2.4 |
| Massachusetts | 227 | +52.3 | +183.8 | 2,253 | 9,669 | −27.1 | +59.1 |
| New Hampshire | 81 | +12.5 | +50.0 | 320 | 992 | −2.3 | −7.5 |
| Rhode Island | 92 | +50.8 | ---------- | 328 | 1,592 | −10.1 | +38.2 |
| Vermont | 48 | ---------- | ---------- | 111 | 509 | −15.2 | −39.8 |
| Region II: | | | | | | | |
| New York | 1,022 | +41.9 | +80.2 | 4,378 | 15,814 | −3.5 | −16.8 |
| Region III: | | | | | | | |
| Delaware | 38 | ---------- | ---------- | 97 | 366 | −22.1 | −27.5 |
| New Jersey | 329 | +8.6 | +112.2 | 1,824 | 8,470 | −7.2 | −17.6 |
| Pensylvania | 516 | +31.3 | +72.6 | 6,289 | 19,292 | −7.5 | +37.0 |
| Region IV: | | | | | | | |
| District of Columbia | 247 | +52.5 | +147.0 | 627 | 2,076 | +3.1 | +6.1 |
| Maryland | 207 | +.5 | +19.6 | 854 | 1,263 | −31.7 | −62.2 |
| North Carolina | 298 | −15.3 | +97.4 | 898 | 2,182 | −29.3 | +4.0 |
| Virginia | 255 | +28.8 | +79.6 | 734 | 1,398 | +19.2 | −10.0 |
| West Virginia | 101 | +9.8 | ---------- | 1,276 | 3,761 | +15.3 | −5.7 |
| Region V: | | | | | | | |
| Kentucky | 148 | +59.1 | +39.6 | 694 | 4,017 | −3.7 | +4.6 |
| Michigan | 717 | +40.9 | +73.6 | 2,869 | 11,275 | −2.2 | −19.7 |
| Ohio | 981 | +80.7 | +82.7 | 3,616 | 15,018 | −10.7 | +12.2 |
| Region VI: | | | | | | | |
| Illinois | 864 | +45.0 | +92.8 | 2,730 | 14,816 | +5.7 | +69.0 |
| Indiana | 403 | +47.1 | +79.9 | 1,533 | 8,915 | +9.0 | −.9 |
| Wisconsin | 315 | +48.6 | +56.7 | 688 | 8,099 | −1.2 | +5.6 |
| Region VII: | | | | | | | |
| Alabama | 109 | +58.0 | −3.5 | 1,504 | 5,080 | +7.9 | +2.4 |
| Florida | 116 | +1.8 | +61.1 | 1,790 | 5,484 | +11.8 | +91.4 |
| Georgia | 192 | +40.1 | −16.5 | 1,098 | 3,161 | −11.8 | −23.1 |
| Mississippi | 91 | −6.2 | −8.1 | 955 | 1,842 | +14.3 | +33.1 |
| South Carolina | 192 | +22.3 | +146.2 | 451 | 1,324 | −3.4 | −7.4 |
| Tennessee | 212 | +47.2 | +11.0 | 1,073 | 4,876 | +.6 | [2] |
| Region VIII: | | | | | | | |
| Iowa | 668 | +38.9 | +12.3 | 1,022 | 4,581 | −7.0 | −16.0 |
| Minnesota | 343 | +117.1 | +53.1 | 1,863 | 7,608 | +1.0 | −24.0 |
| Nebraska | 234 | +131.7 | +31.5 | 895 | 2,988 | +3.1 | +23.9 |
| North Dakota | 79 | ---------- | +3.9 | 161 | 1,311 | −2.7 | −3.1 |
| South Dakota | 77 | ---------- | ---------- | 219 | 1,362 | −8.0 | −18.0 |
| Region IX: | | | | | | | |
| Arkansas | 169 | −32.4 | −34.0 | 843 | 2,576 | +18.2 | +1.0 |
| Kansas | 273 | +28.2 | +28.8 | 1,157 | 4,195 | +11.2 | +9.0 |
| Missouri | 606 | −26.0 | +25.5 | 4,252 | 12,452 | +31.5 | +27.4 |
| Oklahoma | 199 | +31.8 | −29.2 | 1,427 | 4,243 | +21.8 | −27.2 |
| Region X: | | | | | | | |
| Louisiana | 93 | −12.3 | +52.4 | 789 | 2,821 | −29.4 | +9.8 |
| New Mexico | 54 | −1.8 | −25.0 | 277 | 1,425 | −18.8 | −26.2 |
| Texas | 782 | +11.7 | −26.4 | 2,771 | 9,281 | +21.9 | +16.3 |
| Region XI: | | | | | | | |
| Arizona | 107 | −35.5 | −2.7 | 396 | 1,207 | +8.0 | −27.6 |
| Colorado | 154 | +40.0 | +.6 | 851 | 3,052 | −1.5 | −14.4 |
| Idaho | 236 | +40.5 | +31.1 | 529 | 1,117 | −5.2 | +44.3 |
| Montana | 187 | +130.9 | +29.9 | 381 | 1,327 | −17.5 | −26.2 |
| Utah | 77 | ---------- | ---------- | 207 | 1,141 | −4.4 | −15.4 |
| Wyoming | 87 | +55.4 | +70.6 | 230 | 471 | −17.1 | −24.0 |
| Region XII: | | | | | | | |
| California | 1,514 | +6.6 | +37.6 | 7,484 | 21,378 | −5.3 | −24.7 |
| Nevada | 93 | −22.5 | −7.9 | 196 | 333 | +22.0 | −7.0 |
| Oregon | 388 | +3.2 | +35.2 | 862 | 2,309 | −17.9 | −28.6 |
| Washington | 321 | +21.1 | −16.4 | 1,433 | 2,591 | −18.8 | −50.1 |
| Territories: | | | | | | | |
| Alaska | 45 | ---------- | ---------- | 80 | 111 | −11.2 | −40.3 |
| Hawaii | 32 | ---------- | ---------- | 42 | 232 | −22.7 | −45.8 |

[1] Where less than 50 veteran placements were involved in either month the percentage change was not computed.

[2] Increase of less than a tenth of 1 percent.

# UNEMPLOYMENT-COMPENSATION OPERATIONS, APRIL 1941 [1]

WITH the continuing increase in employment, benefits declined further and placements increased during April. Benefit payments, totaling $27 million, reached the lowest level since October 1939 and were paid to an average weekly total of 590,000 workers. This was 371,000 fewer than in April 1940. At least 702,000 workers received one or more payments during the month, in contrast to 1.1 million workers in April 1940.

## *Claims Received*

The decline in compensable claims resulted from both the return to work of many claimants who had initiated new benefit years in the past three months and a slackening in industrial lay-offs. A doubling of waiting-period claims arising out of the beginning of new benefit years in several States or the labor dispute in the coal-mining industry, however, more than offset the decrease in compensable claims, with the result that total continued claims rose 14 percent, to 4.3 million, in April. The outstanding increase was reported by West Virginia, where the volume of claims was more than six times larger than in March; in Pennsylvania, the number of claims almost doubled. Other marked gains, ranging from 30 to 66 percent, took place in Alaska, Illinois, Maine, Maryland, Massachusetts, New York, Rhode Island, and Virginia. Only in Alaska and West Virginia, however, were the receipts higher than in April 1940.

Decreases from March were reported by 29 States, chiefly in the West North Central, Rocky Mountain, and Pacific Coast States. Reductions of at least 30 percent occurred in Connecticut, Delaware, Idaho, Oregon, Wisconsin, and Wyoming, and 10 additional States reported decreases of 20 percent or more.

The weekly average of 933,000 claims for all types of unemployment represented an increase of 3 percent over March, with 14 States reporting higher averages. The gain was attributable mainly to the beginning of new uniform benefit years and to labor disputes in some of these States. Claims filed for all types of unemployment increased from 761,000 during the week ended April 5, the lowest weekly volume of claims in any week of 1940 and 1941, to approximately 1.1 million in each of the last 2 weeks ended within the month.

Average weekly continued claims for total unemployment in April totaled 859,000, an increase of 4 percent over March. Weekly claim receipts for total unemployment comprised 92 percent or more of all claims, except during the week ended April 5. The number of persons filing claims increased steadily from about 690,000 in the week

[1] Prepared by Research and Statistics Division, Bureau of Employment Security, Social Security Board.

ended April 5 to more than 981,000 in the last week ended within the month.

### *Disbursements*

More than 2.5 million weeks of unemployment were compensated during the month, a decline of 19 percent from March 1941 and 38 percent from April 1940. Approximately 92 percent of all weeks of unemployment compensated were for total unemployment, practically the same proportion as in the past 2 months. The number of weeks of partial and part-total unemployment compensated in April totaled 213,000, a decrease of 22 percent from March. Decreases were shown in 38 of the 47 States which issue such payments. About 32 percent of all weeks of unemployment compensated in Hawaii and 20 percent in Illinois were for partial and part-total unemployment.

Approximately $27 million in benefits were paid to unemployed workers in April, a decline of 20 percent from March 1941 and 36 percent below April 1940. Decreases from March were mainly concentrated in the Great Lakes States and in all but two of the States west of the Mississippi River, reflecting the usual seasonal improvement in employment that occurs at this time of the year. Connecticut, Delaware, Idaho, Indiana, Iowa, Nebraska, New York, and Virginia reported the largest declines, ranging from 35 to 45 percent. Among the 10 States with increases, payments in New Hampshire almost doubled those made last month, and in Maryland and Rhode Island were approximately 75 percent greater, principally due to the initiation of new uniform benefit years.

In the first 4 months of the year more than $134 million in benefits were paid to unemployed workers. This was $40 million, or 23 percent, less than was paid in the first 4 months of 1940.

### *Beneficiaries*

The decline in the average number of benefit recipients, 23 percent, was sharper than the reduction in benefit payments. Forty-five States had fewer benefit recipients, with Delaware, Idaho, Illinois, Iowa, and Virginia reporting outstanding reductions, 40 percent or more. The decline in Virginia reflected the additional waiting periods served following the beginning of new uniform benefit years on April 1. Substantial reductions occurred in most of the remaining States having smaller numbers of recipients. Of the 6 States showing increases, New Hampshire and Rhode Island had gains of at least 75 percent, and Maryland of 30 percent, over March.

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## *Continued Unemployment Compensation Claims [1] Received, Weeks Compensated, and Benefits Paid, by State, April 1941*

[Data reported by State agencies, corrected to May 23, 1941]

| Social Security Board region and State | Continued claims [1] | | | Weeks compensated | | | |
|---|---|---|---|---|---|---|---|
| | | Type | | | Type of unemployment | | |
| | Number | Waiting period | Compensable | Number | Total | Partial and part-total combined [2] | Partial only [2] |
| Total | 4,270,363 | 1,481,147 | 2,789,216 | 2,550,942 | 2,334,429 | 216,513 | ..... |
| Region I: | | | | | | | |
| Connecticut | 25,260 | 6,912 | 18,348 | 18,744 | 17,058 | 1,686 | ([3]) |
| Maine | 35,393 | 12,451 | 22,942 | 21,905 | 20,069 | 1,836 | 801 |
| Massachusetts | 217,042 | 79,696 | 137,346 | 122,172 | 113,695 | 8,477 | 7,716 |
| New Hampshire | 23,150 | 5,441 | 17,709 | 18,022 | 16,704 | 1,318 | ([3]) |
| Rhode Island | 49,146 | 11,020 | 38,126 | 38,126 | 35,251 | 2,875 | ([3]) |
| Vermont | 7,744 | 1,404 | 6,340 | 6,326 | 5,818 | 508 | 323 |
| Region II: | | | | | | | |
| New York | 703,609 | 396,224 | 307,385 | 296,293 | 296,293 | ([2]) | ([2]) |
| Region III: | | | | | | | |
| Delaware | 7,121 | 1,239 | 5,882 | 5,805 | 4,838 | 967 | 844 |
| New Jersey | 113,677 | 27,833 | 85,844 | 88,043 | 84,396 | 3,647 | ([3]) |
| Pennsylvania | 583,734 | 259,888 | 323,846 | 248,199 | 248,199 | ([2]) | ([2]) |
| Region IV: | | | | | | | |
| Dist. of Columbia | 20,557 | 2,420 | 18,137 | 17,684 | 16,532 | 1,152 | ([3]) |
| Maryland | 60,757 | 11,658 | 49,099 | 40,591 | 37,377 | 3,214 | 2,786 |
| North Carolina | 60,583 | 7,251 | 53,332 | 53,082 | 50,493 | 2,589 | 2,057 |
| Virginia | 43,471 | 26,605 | 16,866 | 15,767 | 14,690 | 1,077 | 645 |
| West Virginia | 173,162 | 94,822 | 78,340 | 17,506 | 15,668 | [4] 1,838 | ([3]) |
| Region V: | | | | | | | |
| Kentucky | 18,761 | 2,727 | 16,034 | 31,958 | 27,338 | 4,620 | 2,406 |
| Michigan | 104,001 | 26,448 | 77,553 | 75,288 | 71,861 | 3,427 | ([3]) |
| Ohio | 173,500 | 49,400 | 124,100 | 116,302 | 103,577 | 12,725 | ([3]) |
| Region VI: | | | | | | | |
| Illinois | 249,262 | 110,812 | 138,450 | 125,326 | 100,710 | 24,616 | 16,022 |
| Indiana | 55,081 | 18,113 | 36,968 | 36,882 | 30,605 | 6,277 | ([3]) |
| Wisconsin | 26,477 | 8,952 | 17,525 | 18,141 | 16,177 | 1,964 | 856 |
| Region VII: | | | | | | | |
| Alabama | 60,834 | 20,675 | 40,159 | 41,322 | 37,908 | 3,414 | 817 |
| Florida | 46,052 | 13,025 | 33,027 | 31,989 | 26,863 | 5,126 | ([3]) |
| Georgia | 48,991 | 17,128 | 31,863 | 31,620 | 30,118 | 1,502 | 931 |
| Mississippi | 27,888 | 4,746 | 23,142 | 22,154 | 20,514 | 1,640 | 869 |
| South Carolina | 25,335 | 5,749 | 19,586 | 17,089 | 15,102 | 1,987 | 697 |
| Tennessee | 67,065 | 12,964 | 54,101 | 48,823 | 46,723 | 2,100 | 632 |
| Region VIII: | | | | | | | |
| Iowa | 48,529 | 21,088 | 27,441 | 27,538 | 23,286 | 4,252 | 647 |
| Minnesota | 101,423 | 13,710 | 87,713 | 90,509 | 82,780 | 7,729 | ([3]) |
| Nebraska | 19,571 | 2,594 | 16,977 | 16,171 | 14,454 | 1,717 | 877 |
| North Dakota | 9,210 | 1,457 | 7,753 | 8,336 | 7,088 | 1,248 | 730 |
| South Dakota | 7,532 | 3,032 | 4,500 | 4,492 | 4,299 | 193 | ([3]) |
| Region IX: | | | | | | | |
| Arkansas | 50,473 | 12,982 | 37,491 | 37,491 | 34,736 | 2,755 | 112 |
| Kansas | 23,109 | 8,063 | 15,046 | 14,911 | 12,746 | 2,165 | 1,189 |
| Missouri | 71,736 | 28,870 | 42,866 | 38,705 | 33,451 | 5,254 | 972 |
| Oklahoma | 40,022 | 12,193 | 27,829 | 25,966 | 22,163 | 3,803 | 471 |
| Region X: | | | | | | | |
| Louisiana | 74,090 | 19,465 | 54,625 | 52,511 | 48,710 | 3,801 | ([3]) |
| New Mexico | 13,624 | 2,159 | 11,465 | 10,443 | 9,817 | 626 | 284 |
| Texas | 119,337 | 19,004 | 100,333 | 68,952 | 59,202 | 9,750 | ([3]) |
| Region XI: | | | | | | | |
| Arizona | 9,707 | 2,458 | 7,249 | 7,128 | 6,605 | 523 | 45 |
| Colorado | 31,734 | 5,591 | 26,143 | 24,637 | 22,240 | 2,397 | 969 |
| Idaho | 19,014 | 3,351 | 15,663 | 17,376 | 16,303 | 1,073 | ([3]) |
| Montana | 37,435 | 4,974 | 32,461 | 31,643 | 31,643 | ([2]) | ([2]) |
| Utah | 10,527 | 1,772 | 8,755 | 8,092 | 6,972 | 1,119 | 277 |
| Wyoming | 8,146 | 1,812 | 6,334 | 7,518 | 6,214 | 1,304 | 548 |
| Region XII: | | | | | | | |
| California | 437,450 | 57,871 | 379,579 | 367,620 | 313,496 | 54,124 | 39,487 |
| Nevada | 8,711 | 1,131 | 7,580 | 7,080 | 6,217 | 863 | 249 |
| Oregon | 30,703 | 6,812 | 23,891 | 23,727 | 20,608 | 3,119 | 2,020 |
| Washington | 61,860 | 12,865 | 48,995 | 49,065 | 42,111 | 6,954 | ([3]) |
| Territories: | | | | | | | |
| Alaska | 4,765 | 1,578 | 3,187 | 2,671 | 2,517 | 154 | 0 |
| Hawaii | 4,002 | 712 | 3,290 | 3,201 | 2,193 | 1,008 | 1,002 |

[1] I. e. certification that the claimant has completed a waiting-period week or a compensable period (usually a calendar week or 7-day period).

[2] Benefits for partial and part-total unemployment are not provided by State law in Montana, New York, and Pennsylvania.

[3] Includes supplemental payments, not classified by type of unemployment.

[4] Adjusted to exclude returned and voided benefit checks except for April 1941.

[5] Data for partial unemployment included with data for part-total unemployment.

[6] Payments for part-total and partial unemployment are made for benefit periods of 1 quarter. The number of weeks represented by each such payment is determined by dividing the amount paid by the claimant's benefit rate for total unemployment.

*Continued Unemployment Compensation Claims [1] Received, Weeks Compensated, and Benefits Paid, by State, April 1941*

[Data reported by State agencies, corrected to May 23, 1941]

| Social Security Board region and State | Benefits paid | | | | Month and year benefits first payable | Amount of benefits since first payable [4] |
|---|---|---|---|---|---|---|
| | Amount [3] | Type of unemployment | | | | |
| | | Total | Partial and part-total combined [2] | Partial only [2] | | |
| Total | $26,997,704 | $25,448,918 | $1,524,681 | | | $1,478,095,795 |
| Region I: | | | | | | |
| Connecticut | 189,533 | 178,104 | 10,815 | (5) | Jan. 1938 | 23,666,048 |
| Maine | 144,426 | 133,297 | 11,129 | $5,010 | do | 11,667,707 |
| Massachusetts | 1,262,343 | 1,216,842 | 44,428 | 39,455 | do | 84,161,189 |
| New Hampshire | 157,738 | 149,970 | 7,768 | (5) | do | 7,032,547 |
| Rhode Island | 345,395 | 330,267 | 15,128 | (5) | do | 24,034,719 |
| Vermont | 60,569 | 57,378 | 3,030 | 1,654 | do | 2,627,932 |
| Region II: | | | | | | |
| New York | 3,571,968 | 3,571,968 | (2) | (2) | do | 289,785,952 |
| Region III: | | | | | | |
| Delaware | 47,880 | 42,643 | 5,113 | 4,318 | Jan. 1939 | 1,827,363 |
| New Jersey | 883,510 | 858,131 | 24,282 | (5) | do | 35,354,200 |
| Pennsylvania | 2,824,989 | 2,824,989 | (2) | (2) | Jan. 1938 | 181,077,833 |
| Region IV: | | | | | | |
| Dist. of Columbia | 216,654 | 203,781 | 12,630 | (2) | do | 6,181,724 |
| Maryland | 418,547 | 396,854 | 21,475 | 18,026 | do | 23,832,634 |
| North Carolina | 258,358 | 250,621 | 7,540 | 5,168 | do | 18,172,543 |
| Virginia | 122,246 | 116,423 | 5,735 | 3,019 | do | 16,918,952 |
| West Virginia | 172,025 | 160,160 | 11,865 | (5) | do | 21,046,576 |
| Region V: | | | | | | |
| Kentucky | 231,712 | 211,263 | 19,775 | (5) | Jan. 1939 | 10,629,135 |
| Michigan | 838,510 | 818,654 | 19,856 | (5) | July 1938 | 108,424,433 |
| Ohio | 1,107,230 | 1,035,596 | 65,789 | (5) | Jan. 1939 | 54,033,798 |
| Region VI: | | | | | | |
| Illinois | 1,531,208 | 1,343,831 | 185,331 | 106,895 | July 1939 | 69,724,637 |
| Indiana | 360,278 | 325,647 | 34,389 | (5) | Apr. 1938 | 38,126,064 |
| Wisconsin | 184,149 | 170,662 | 13,487 | 5,520 | July 1936 | 20,781,765 |
| Region VII: | | | | | | |
| Alabama | 282,947 | 264,477 | 18,222 | 3,728 | Jan 1938 | 18,329,300 |
| Florida | 327,126 | 293,461 | 33,665 | (5) | Jan. 1939 | 11,131,910 |
| Georgia | 220,149 | 212,945 | 7,204 | 5,027 | do | 8,610,320 |
| Mississippi | 146,727 | 137,953 | 8,748 | 4,516 | Apr. 1938 | 5,675,786 |
| South Carolina | 116,803 | 106,726 | 9,973 | 3,293 | July 1938 | 5,750,270 |
| Tennessee | 378,668 | 365,968 | 12,700 | 3,383 | Jan. 1938 | 18,496,385 |
| Region VIII: | | | | | | |
| Iowa | 245,254 | 218,817 | 25,761 | 3,391 | July 1938 | 13,309,981 |
| Minnesota | 925,155 | 861,689 | 63,466 | (5) | Jan. 1938 | 29,739,947 |
| Nebraska | 142,960 | 130,279 | 12,637 | 6,094 | Jan. 1939 | 3,938,652 |
| North Dakota | 77,387 | 67,429 | 9,958 | 5,652 | do | 1,503,418 |
| South Dakota | 32,881 | 31,734 | 1,141 | (5) | do | 944,274 |
| Region IX: | | | | | | |
| Arkansas | 250,794 | 239,335 | 11,436 | 669 | do | 5,646,918 |
| Kansas | 128,300 | 114,315 | 13,985 | 7,060 | do | 5,028,013 |
| Missouri | 327,848 | 301,250 | 26,541 | 4,070 | do | 14,602,860 |
| Oklahoma | 233,909 | 210,792 | 23,117 | 1,768 | Dec. 1938 | 9,090,898 |
| Region X: | | | | | | |
| Louisiana | 479,063 | 453,351 | 24,978 | (5) | Jan. 1938 | 18,761,819 |
| New Mexico | 91,116 | 86,421 | 4,688 | 2,049 | Dec. 1938 | 2,834,331 |
| Texas | 528,572 | 479,679 | 48,734 | (5) | Jan. 1938 | 32,235,505 |
| Region XI: | | | | | | |
| Arizona | 74,466 | 70,555 | 3,911 | 267 | do | 5,075,060 |
| Colorado | 241,644 | 222,835 | 18,669 | 6,991 | Jan. 1939 | 8,791,343 |
| Idaho | 194,116 | 185,680 | 8,300 | (5) | Sept. 1938 | 5,628,704 |
| Montana | 351,154 | 351,154 | (2) | (2) | July 1939 | 5,490,299 |
| Utah | 85,972 | 78,154 | 7,818 | 1,990 | Jan. 1938 | 6,398,175 |
| Wyoming | 94,076 | 81,600 | 12,476 | 4,840 | Jan. 1939 | 2,774,542 |
| Region XII: | | | | | | |
| California | 5,090,024 | 4,583,887 | 497,647 | 352,127 | Jan. 1938 | 150,836,919 |
| Nevada | 91,526 | 82,592 | 8,934 | 2,454 | Jan. 1939 | 2,428,553 |
| Oregon | 273,244 | 248,260 | 24,353 | 15,197 | Jan. 1938 | 15,499,860 |
| Washington | 581,178 | 521,317 | 59,861 | (5) | Jan. 1939 | 18,782,552 |
| Territories: | | | | | | |
| Alaska | 36,362 | 34,766 | 1,596 | 0 | do | 1,023,312 |
| Hawaii | 19,015 | 14,416 | 4,597 | 4,564 | do | 628,138 |

# National Income

## NATIONAL INCOME, 1919 TO 1940

### *The Current Expansion of Income*

THE national income of the United States in 1940, as estimated by the United States Department of Commerce, was $76,035,000,000—more than $5,000,000,000 above the total in 1939.[1] The increase in the national income in 1940 was mainly in the latter half of the year and was an accompaniment of the national defense program. The uncertainties and disturbances abroad and the exigencies of national defense at home brought about a halt in the comparatively rapid expansion of nondurable-goods, consumer-goods, and service industries, but created a powerful stimulus to the expansion of wartime exports and defense industries. Exports of such goods as heavy iron and steel, nonferrous metals, metalworking machinery, aircraft, firearms, and chemicals more than doubled in 1940 as compared to 1939, and 55 percent of these exports were in the second half of 1940. Defense expenditures also more than doubled.

The total national income in 1940 was 7.6 percent greater than in 1939, 90.1 percent greater than in 1932, and 8.8 percent smaller than in 1929; but these figures do not take into account the significant changes in price levels. It is estimated that real income, as computed by adjusting the dollar values to price changes, was 11 percent larger in 1940 than in 1929 and 60 percent larger in 1939 and 1940 than 20 years earlier. In 1940, real income per capita was above the 1929 peak of per capita income.[2]

[1] U. S. Department of Commerce. Survey of Current Business, June 1941: National Income Exceeds 76 Billion Dollars in 1940, by Milton Gilbert and Dwight B. Yntema. This article gives revised figures for earlier years. Significant revisions have been made possible by use of the figures of the Census of Manufactures for 1939, especially for the adjustment of pay-roll data. Some of the industrial censuses for 1939 have also called for revisions of income data. The components of national income have undergone some revisions as a result of transfers, notably the shifting of shipbuilding from the construction to the manufacturing group of industries. Data recently available from the Bureau of Internal Revenue made possible improved estimates of entrepreneurial income. Estimates for the years 1919 to 1929 made by the National Bureau of Economic Research were linked to the Department of Commerce estimates on the basis of the 1929 relationships.

[2] The use of price and cost-of-living indexes for adjustment of the income figures presents serious difficulties and the resulting estimates of real income are rough approximations. The methods used by the Department of Commerce are described on page 12, footnote 3, of the article cited in footnote 1, above.

## Nature and Components of the National Income Total

Estimates of national income vary in some degree with the definition of income, with the data incorporated in the estimates, and with the methods of computation. The concept of national income embodied in the estimates of income made by the Department of Commerce is defined by that agency as follows:

> National income is the measure of the value of the net output of commodities and services produced by the private and public enterprises of the economy. It includes the economic activities carried on by all producing entities—corporations, partnerships, individual enterprises, and governmental agencies. In practice, the development follows industrial lines so that measures are at once provided for the segments of the national income that originate in each of the several broad industry groups such as agriculture, mining, trade, etc. The measure is net in the sense that the value of materials and supplies and of plant and equipment consumed in the process of production is deducted from the gross value of goods and services produced in order to obtain the value of net production.
>
> The private and public enterprises utilize personal services and capital provided by individuals, who thus both contribute to the productive process and share in the division of the net product. The net product is represented by returns in the form of salaries and wages, net income of business enterprises, interest, and rents and royalties. Salaries and wages, supplements to salaries and wages, interest, and net rents and royalties are conceived as paid out by enterprises. Net incomes of businesses, on the other hand, are transferred only to the extent that dividend payments are made by corporations and withdrawals are made by owners of unincorporated businesses. The difference between net income and the amount disbursed constitutes business savings, such "savings" being either positive or negative. Income actually disbursed by enterprises plus business savings equals the national income. Thus, the national income is a measure of the net value of goods and services produced and also of the claims to these goods and services.

The concepts of national income as a measure of the net value of goods and services produced and as a measure of the claims to these goods and services are supplemented by another concept described as "income payments to individuals" and used in the monthly income estimates and annual distributions by States, as published by the Department of Commerce. "Income payments to individuals" may be either larger or smaller than the estimates of national income.[3]

[3] The Department of Commerce reconciles national income with income payments to individuals as follows: "Deduct (a) pensions and other contributions of employers (under Social Security, Railroad Retirement Board, and governmental employee systems); (b) pension and other contributions of employees (under the systems just noted); and (c) business savings; and add (a) direct relief, including old-age assistance, aid to dependent children, and aid to the blind; (b) Federal pensions to veterans, including payments on adjusted service certificates; (c) governmental retirement allowances; and (d) insurance benefits under unemployment compensation, old-age insurance, and railroad retirement programs." For a summary of monthly income data, see Monthly Income Payments in the United States, 1929 to 1940, in the Monthly Labor Review for April 1941, and for summary of State income data, see Income Payments by States, 1929 to 1939, in the Monthly Labor Review for January 1941.

## *General Trends, 1919 to 1940*

The Department of Commerce has made detailed estimates of national income for the period beginning in 1929. The National Bureau of Economic Research has made somewhat similar estimates for the period going back to 1919. By linking comparable components of the two series on the basis of 1929 relationships, the Department of Commerce has constructed continuous estimates for the period 1919 to 1940 for national income both by industrial origin and by distributive shares.[4] National income by industrial origin for 1919 to 1940 is given in table 1.

TABLE 1.—*National Income, by Industrial Origin, 1919–40* [1]

[Billions of dollars]

| Year | Total | Agriculture | Manufacturing | Construction | Transportation | Trade | Finance | Government | Service | Other |
|---|---|---|---|---|---|---|---|---|---|---|
| 1919 | 67.7 | 11.1 | 17.3 | 1.9 | 5.8 | 11.2 | 5.7 | 4.7 | 5.1 | 4.9 |
| 1920 | 69.8 | 9.1 | 18.4 | 2.5 | 7.1 | 9.7 | 6.1 | 4.7 | 6.0 | 6.2 |
| 1921 | 52.8 | 6.3 | 10.7 | 1.9 | 5.7 | 7.1 | 6.0 | 4.8 | 5.8 | 4.5 |
| 1922 | 60.6 | 5.9 | 13.9 | 2.4 | 5.8 | 9.1 | 6.7 | 4.9 | 6.7 | 5.2 |
| 1923 | 70.0 | 6.7 | 17.4 | 3.2 | 6.5 | 10.3 | 7.2 | 5.3 | 7.0 | 6.4 |
| 1924 | 70.1 | 7.3 | 16.0 | 3.3 | 6.4 | 10.1 | 7.7 | 5.2 | 7.6 | 6.5 |
| 1925 | 74.8 | 7.7 | 17.4 | 3.5 | 6.7 | 10.7 | 8.1 | 5.4 | 8.3 | 7.0 |
| 1926 | 76.9 | 7.3 | 18.0 | 3.6 | 6.9 | 10.9 | 8.4 | 5.6 | 8.5 | 7.7 |
| 1927 | 76.4 | 7.2 | 17.6 | 3.5 | 6.7 | 10.6 | 8.7 | 5.9 | 8.8 | 7.4 |
| 1928 | 80.2 | 7.3 | 18.7 | 3.7 | 6.8 | 11.0 | 9.6 | 6.1 | 9.4 | 7.6 |
| 1929 | 83.4 | 7.3 | 20.4 | 3.5 | 7.1 | 11.1 | 9.4 | 6.3 | 9.9 | 8.4 |
| 1930 | 69.0 | 5.6 | 15.1 | 2.6 | 6.2 | 9.0 | 8.0 | 6.5 | 8.9 | 7.1 |
| 1931 | 54.3 | 3.7 | 10.3 | 1.8 | 5.0 | 7.2 | 6.5 | 6.5 | 7.5 | 5.8 |
| 1932 | 40.0 | 2.6 | 6.1 | .8 | 3.7 | 5.1 | 4.9 | 6.5 | 5.7 | 4.6 |
| 1933 | 42.5 | 3.4 | 8.2 | .5 | 3.6 | 5.9 | 4.4 | 6.6 | 5.4 | 4.5 |
| 1934 | 50.3 | 4.6 | 10.6 | .7 | 3.8 | 6.8 | 4.7 | 7.6 | 6.3 | 5.2 |
| 1935 | 55.8 | 5.3 | 12.5 | .9 | 4.1 | 7.5 | 5.2 | 7.9 | 6.8 | 5.6 |
| 1936 | 65.1 | 6.0 | 15.2 | 1.4 | 4.8 | 8.6 | 5.9 | 9.2 | 7.7 | 6.3 |
| 1937 | 71.4 | 6.4 | 17.5 | 1.8 | 5.2 | 9.6 | 6.4 | 9.0 | 8.6 | 6.9 |
| 1938 | 64.4 | 5.4 | 13.3 | 1.8 | 4.4 | 9.0 | 5.9 | 9.8 | 8.3 | 6.5 |
| 1939 | 70.7 | 5.8 | 16.4 | 2.1 | 5.0 | 9.6 | 6.1 | 9.9 | 8.8 | 7.0 |
| 1940 | 76.0 | 6.0 | 19.2 | 2.4 | 5.3 | 10.1 | 6.2 | 10.2 | 9.3 | 7.3 |

[1] Data for 1919–28 derived from estimates prepared by Simon Kuznets (National Income and Capital Formation 1919–35, National Bureau of Economic Research, Inc., New York, 1937), by linking the industrial components of each distributive share of the Kuznets figures to comparable elements of the Department of Commerce data on the basis of 1929 relationships.

An outstanding development, as indicated by table 1, is the radical change in the comparative amount of income from different main segments of the economy. Although the national income in 1940 was much larger than in 1919, the income originating in agriculture was reduced from 11.1 to 6.0 billions of dollars. Changes of this nature indicate significant alterations in the national economy.

The national income by distributive shares from 1919 to 1940 is shown in table 2.

[4] The term "distributive shares" refers to the shares of income (salaries, wages, dividends, etc.) transferred by business enterprises, which, with "business savings" (either positive or negative), are equal to total national income. The term formerly used for distributive shares as transferred by business enterprises was "income paid out."

TABLE 2.—*National Income, by Distributive Shares, 1919–40* [1]

[Billions of dollars]

| Year | Total national income | Compensation of employees | | Net income of incorporated businesses | | Total net income of unincorporated businesses [2] | Interest | Net rents and royalties |
|---|---|---|---|---|---|---|---|---|
| | | Total | Salaries and wages only | Total | Dividends only | | | |
| 1919 | 67.7 | 38.0 | 37.7 | 5.9 | 3.0 | 18.1 | 3.0 | 2.7 |
| 1920 | 69.8 | 44.7 | 44.4 | 4.4 | 3.3 | 14.4 | 3.4 | 2.9 |
| 1921 | 52.8 | 35.6 | 35.3 | .4 | 3.0 | 10.2 | 3.6 | 3.0 |
| 1922 | 60.6 | 37.6 | 37.3 | 4.0 | 3.0 | 11.8 | 3.8 | 3.4 |
| 1923 | 70.0 | 44.2 | 43.8 | 5.3 | 3.8 | 12.7 | 4.2 | 3.6 |
| 1924 | 70.1 | 43.8 | 43.4 | 4.6 | 3.7 | 13.5 | 4.5 | 3.7 |
| 1925 | 74.8 | 45.8 | 45.4 | 6.3 | 4.4 | 14.1 | 4.8 | 3.8 |
| 1926 | 76.9 | 48.5 | 48.1 | 6.3 | 4.7 | 13.6 | 5.0 | 3.5 |
| 1927 | 76.4 | 48.6 | 48.2 | 5.5 | 5.0 | 13.7 | 5.3 | 3.3 |
| 1928 | 80.2 | 50.1 | 49.7 | 7.0 | 5.3 | 14.1 | 5.6 | 3.4 |
| 1929 | 83.4 | 52.7 | 52.2 | 7.2 | 5.9 | 14.2 | 5.9 | 3.4 |
| 1930 | 69.0 | 47.9 | 47.4 | 1.7 | 5.6 | 10.7 | 6.1 | 2.7 |
| 1931 | 54.3 | 40.3 | 39.8 | −1.6 | 4.3 | 7.5 | 6.0 | 2.0 |
| 1932 | 40.0 | 31.5 | 30.9 | −3.6 | 2.7 | 5.3 | 5.7 | 1.2 |
| 1933 | 42.5 | 29.6 | 28.5 | −.6 | 2.2 | 7.2 | 5.1 | 1.2 |
| 1934 | 50.3 | 34.2 | 32.4 | .6 | 2.7 | 8.9 | 5.2 | 1.5 |
| 1935 | 55.8 | 37.2 | 35.4 | 1.7 | 2.9 | 10.1 | 5.1 | 1.7 |
| 1936 | 65.1 | 42.6 | 39.6 | 3.8 | 4.7 | 11.8 | 5.0 | 1.9 |
| 1937 | 71.4 | 47.8 | 44.6 | 3.9 | 4.8 | 12.5 | 5.0 | 2.1 |
| 1938 | 64.4 | 44.9 | 41.1 | 1.7 | 3.2 | 11.0 | 4.9 | 1.9 |
| 1939 | 70.7 | 48.1 | 44.3 | 3.8 | 3.8 | 11.9 | 4.9 | 2.0 |
| 1940 | 76.0 | 51.8 | 48.2 | 4.8 | 4.2 | 12.4 | 4.9 | 2.1 |

[1] See footnote 1, table 1.
[2] Includes owners' remuneration for personal services.

The fact of greatest significance apparent from table 2 is the large increase in the proportion of the national income distributed as the compensation of employees. Employee compensation was only 56.1 percent of total national income in 1919 but rose to 68.2 percent in 1940. The relative increase in salaries and wages only was also considerable, although less marked, namely, 55.7 percent in 1919 to 63.4 percent in 1940. Compensation of employees includes (table 2) salaries as well as wages and also payments described as supplements to salaries and wages. Some part of the latter is compensation to persons not normally in the employee groups, as for example, payments to farmers for emergency employment to supplement their income from farm operations.

It is apparent, of course, that the increase in the proportion of the national income going to employees was mainly a result of a transformation of the national economy in the direction of large-scale enterprise operated by employed persons as distinguished from small-scale and even family-size farms and business enterprises. This trend is indicated, for example, by estimates for the years 1920 to 1937 of entrepreneurs and self-employed as compared to persons forming the labor supply in the sense of persons employed or normally

available for employment.[5] The estimated number of entrepreneurs and self-employed persons increased from 12,376,000 in 1920 to 13,022,000 in 1937, a decline from 29.2 percent of the gainfully occupied population in 1920 to 23.9 percent in 1937. The estimated labor supply, on the other hand, rose from 29,951,000 in 1920 to 41,447,000 in 1937, an increase from 70.8 percent of the gainfully occupied population in 1920 to 76.1 percent in 1937.

Some of the increase in employee compensation as a proportion of total income was caused by the comparatively large increase of employment in those divisions of the national economy which normally distribute a high proportion of income as employee compensation. This trend is illustrated by some types of service industries and by Government. Income originating in governmental activities formed a much larger proportion of total income in 1940 than in 1919, and 77.5 percent of income ascribed to Government was distributed to wages and salaries, not including work-relief compensation, whereas wages and salaries as a whole were only 63.3 percent of the total national income. The increase in the proportion of total income going to the employed groups was accompanied by a decrease in wages as a percentage of total income originating in certain important and comparatively homogeneous fields of employment, notably manufactures, the minerals industries, and railroad transportation. In these industries, wages can be separated from salaries as well as from other income. Wages in 1919 formed 64.6 percent of all income originating in these three fields, and in 1939, only 59.5 percent.[6]

## *Wages and Salaries, 1929 to 1940*

The detailed tabulations for 1929 to 1940 of the study here summarized include estimates of total salaries and wages and the average compensation (salary-wage) of employees by industrial divisions. These estimates for selected years are given in tables 3 and 4.

The estimates of total salaries and wages (table 3) indicate a smaller total in 1940 than in 1929, but in terms of the purchasing power of the dollar there was a significant increase. The Bureau of Labor Statistics' cost-of-living index (given at the end of table 4) was 18.2 percent lower in 1940 than in 1929, whereas the total of salaries and wages was only 7.8 percent smaller in 1940 than in 1929. Noteworthy shifts occurred in the proportions of total salaries and wages in the different industrial divisions. There were sharp declines in combined salaries and wages in agriculture, in contract construction, in transportation

[5] U. S. Work Projects Administration. National Research Project. Labor Supply and Employment: Preliminary Statement of Estimates Prepared and Methods Used (p. 142), by Daniel Carson, assisted by Henrietta Liebman. Washington, 1939. (Mimeographed.)

[6] Monthly Labor Review for September 1940 (pp. 517–544): Wages, Hours, and Productivity of Industrial Labor, 1909 to 1939, by Witt Bowden. (Reprinted as Serial No. R. 1150.)

(mostly in railroads), and in security brokerage and real estate. Since there was a decline in the total, the increases were less marked than were the reductions, but when the lower cost of living in 1940 is taken into account, most of the industrial divisions, as classified in table 3, show some increase of total employee compensation adjusted by the cost-of-living index.

TABLE 3.—*Total Salaries and Wages of Employees by Industrial Divisions, 1929, 1932, 1933, 1937–40*

[Millions of dollars]

| Industrial division | 1929 | 1932 | 1933 | 1937 | 1938 | 1939 | 1940 |
|---|---|---|---|---|---|---|---|
| All divisions | 52,246 | 30,888 | 28,490 | 44,615 | 41,089 | 44,349 | 48,158 |
| Agriculture, total | 1,284 | 584 | 517 | 794 | 758 | 738 | 745 |
| Mining, total | 1,602 | 709 | 725 | 1,261 | 1,063 | 1,081 | 1,158 |
| Anthracite | 257 | 146 | 128 | 123 | 101 | 104 | 101 |
| Bituminous coal | 636 | 275 | 297 | 534 | 453 | 466 | 515 |
| Metal | 212 | 57 | 57 | 205 | 142 | 157 | 185 |
| Nonmetal | 151 | 68 | 62 | 120 | 95 | 104 | 119 |
| Oil and gas | 346 | 163 | 181 | 279 | 272 | 250 | 238 |
| Manufacturing, total | 15,870 | 7,447 | 7,506 | 14,076 | 11,602 | 13,260 | 15,218 |
| Food and tobacco | 1,550 | 1,017 | 1,044 | 1,572 | 1,544 | 1,595 | 1,671 |
| Paper, printing and publishing | 1,615 | 1,063 | 950 | 1,420 | 1,323 | 1,347 | 1,432 |
| Textiles and leather | 2,898 | 1,528 | 1,676 | 2,421 | 2,139 | 2,472 | 2,503 |
| Construction materials and furniture | 1,811 | 590 | 608 | 1,292 | 1,079 | 1,226 | 1,346 |
| Chemicals and petroleum refining | 858 | 526 | 530 | 850 | 797 | 840 | 923 |
| Metal and metal products | 5,947 | 2,109 | 2,132 | 5,658 | 3,952 | 4,901 | 6,360 |
| Miscellaneous and rubber | 591 | 270 | 274 | 487 | 407 | 512 | 572 |
| Central administrative offices | 600 | 344 | 292 | 376 | 361 | 367 | 411 |
| Contract construction, total | 2,947 | 806 | 481 | 1,403 | 1,402 | 1,689 | 1,907 |
| Transportation, total | 4,939 | 2,826 | 2,603 | 3,825 | 3,412 | 3,659 | 3,838 |
| Steam railroads, Pullman and express | 3,226 | 1,685 | 1,560 | 2,218 | 1,961 | 2,090 | 2,156 |
| Water transportation | 472 | 285 | 297 | 507 | 417 | 481 | 522 |
| Motor transportation and public warehouses | 719 | 500 | 435 | 715 | 653 | 700 | 759 |
| Street railways | 464 | 312 | 268 | 312 | 308 | 312 | 316 |
| Air transportation | 6 | 13 | 13 | 24 | 27 | 32 | 43 |
| Pipe lines | 50 | 31 | 30 | 49 | 46 | 44 | 42 |
| Power and gas, total | 656 | 483 | 450 | 665 | 668 | 671 | 688 |
| Electric light and power | 439 | 312 | 286 | 447 | 449 | 452 | 466 |
| Gas | 217 | 171 | 164 | 218 | 219 | 219 | 222 |
| Communication, total | 706 | 534 | 461 | 606 | 610 | 622 | 652 |
| Telephone | 589 | 458 | 393 | 517 | 530 | 539 | 566 |
| Telegraph | 117 | 76 | 68 | 89 | 80 | 83 | 86 |
| Trade, total | 8,085 | 5,117 | 4,607 | 6,818 | 6,576 | 6,887 | 7,265 |
| Retail trade | 4,996 | 3,162 | 2,877 | 4,150 | 3,967 | 4,148 | 4,400 |
| Wholesale trade | 3,089 | 1,955 | 1,730 | 2,668 | 2,609 | 2,739 | 2,865 |
| Finance, total [1] | 2,503 | 1,898 | 1,703 | 2,035 | 1,961 | 1,994 | 2,049 |
| Banking | 809 | 617 | 532 | 597 | 605 | 620 | 634 |
| Insurance | 984 | 838 | 763 | 936 | 920 | 930 | 951 |
| Security, brokerage, and real estate | 710 | 443 | 408 | 502 | 436 | 444 | 464 |
| Government, total | 4,950 | 4,911 | 4,400 | 5,657 | 5,927 | 6,197 | 6,698 |
| Federal [2] | 1,398 | 1,359 | 1,222 | 1,908 | 1,931 | 2,078 | 2,402 |
| State | 422 | 466 | 444 | 629 | 683 | 703 | 714 |
| City | 1,136 | 1,081 | 908 | 1,072 | 1,171 | 1,182 | 1,235 |
| County, township, and minor units | 382 | 381 | 336 | 403 | 423 | 454 | 473 |
| Public education | 1,612 | 1,624 | 1,490 | 1,645 | 1,719 | 1,780 | 1,874 |
| Service, total | 6,506 | 4,136 | 3,690 | 5,615 | 5,371 | 5,660 | 5,937 |
| Professional service [3] | 1,224 | 1,095 | 1,010 | 1,213 | 1,237 | 1,265 | 1,292 |
| Personal service [4] | 2,140 | 1,313 | 1,143 | 1,988 | 1,912 | 2,034 | 2,161 |
| Recreation and amusements [5] | 432 | 291 | 259 | 401 | 402 | 436 | 443 |
| Business service [6] | 456 | 307 | 277 | 381 | 381 | 394 | 414 |
| Miscellaneous and domestic service [7] | 2,254 | 1,130 | 1,001 | 1,632 | 1,439 | 1,531 | 1,627 |
| Miscellaneous, total | 2,198 | 1,437 | 1,347 | 1,860 | 1,739 | 1,891 | 2,003 |

[1] Does not include certain miscellaneous financial institutions which have been included in "Miscellaneous."

[2] Does not include work-relief wages.

[3] Includes religious, private educational, curative, legal, accounting, and engineering (consulting) activities.

[4] Includes hotels, restaurants, laundries, cleaning and dyeing establishments, apartment houses and office buildings, barber and beauty shops, etc.

[5] Includes motion-picture production and exhibition, radio broadcasting, and other activities primarily providing entertainment.

[6] Includes advertising agencies, trade associations, chambers of commerce, and other enterprises serving business establishments.

[7] Includes domestic service and various industries providing services on automobiles, radios, elevators, watches, and other commodities.

Estimates are also made of the average compensation of employees by industrial divisions. Compensation per employee is described as "full-time equivalent" compensation.

It should be noted that full-time employment for the year as used herein is an average of the number of persons working in the different reported pay periods of the year. This is not to be confused with the total number of different persons working at some time during the year, nor does it represent the equivalent of employment for the full number of working hours during the reported pay periods or intervening periods.

TABLE 4.—*Average Salary-Wage of Employees (Full-Time Equivalent), by Industrial Divisions, 1929, 1932, 1933, 1937–40*

| Industrial division | 1929 | 1932 | 1933 | 1937 | 1938 | 1939 | 1940 |
|---|---|---|---|---|---|---|---|
| All divisions | $1,472 | $1,179 | $1,089 | $1,304 | $1,284 | $1,318 | $1,351 |
| Agriculture,[1] total | 828 | 471 | 434 | 606 | 583 | 588 | 582 |
| Mining, total | 1,492 | 992 | 976 | 1,269 | 1,230 | 1,321 | 1,326 |
| Anthracite | 1,658 | 1,377 | 1,376 | 1,309 | 1,232 | 1,316 | 1,278 |
| Bituminous coal | 1,314 | 741 | 765 | 1,117 | 1,081 | 1,223 | 1,206 |
| Metal | 1,631 | 983 | 983 | 1,434 | 1,279 | 1,342 | 1,412 |
| Nonmetal | 1,398 | 907 | 827 | 1,224 | 1,172 | 1,209 | 1,368 |
| Oil and gas | 1,756 | 1,552 | 1,403 | 1,541 | 1,591 | 1,603 | 1,597 |
| Manufacturing, total | 1,542 | 1,139 | 1,065 | 1,358 | 1,289 | 1,347 | 1,423 |
| Food and tobacco | 1,378 | 1,166 | 1,080 | 1,238 | 1,265 | 1,274 | 1,293 |
| Paper, printing and publishing | 1,835 | 1,556 | 1,416 | 1,585 | 1,596 | 1,637 | 1,661 |
| Textiles and leather | 1,239 | 875 | 846 | 997 | 956 | 990 | 1,006 |
| Construction materials and furniture | 1,354 | 932 | 869 | 1,131 | 1,093 | 1,117 | 1,151 |
| Chemicals and petroleum refining | 1,560 | 1,322 | 1,210 | 1,543 | 1,572 | 1,606 | 1,648 |
| Metal and metal products | 1,713 | 1,147 | 1,111 | 1,573 | 1,422 | 1,556 | 1,680 |
| Miscellaneous and rubber | 1,539 | 1,169 | 1,092 | 1,387 | 1,304 | 1,380 | 1,426 |
| Central administrative officers | 2,885 | 2,567 | 2,454 | 2,870 | 2,843 | 2,867 | 2,978 |
| Contract construction, total | 1,904 | 1,450 | 1,116 | 1,419 | 1,368 | 1,423 | 1,473 |
| Transportation, total | 1,668 | 1,370 | 1,309 | 1,613 | 1,613 | 1,652 | 1,671 |
| Steam railroads, Pullman and express | 1,748 | 1,459 | 1,439 | 1,774 | 1,848 | 1,878 | 1,915 |
| Water transportation | 1,645 | 1,390 | 1,314 | 1,779 | 1,668 | 1,781 | 1,717 |
| Motor transportation and public warehouses | 1,357 | 1,050 | 933 | 1,172 | 1,114 | 1,136 | 1,177 |
| Street railways | 1,725 | 1,537 | 1,433 | 1,642 | 1,692 | 1,733 | 1,765 |
| Air transportation | 2,000 | 2,167 | 2,167 | 2,182 | 2,250 | 2,286 | 2,150 |
| Pipe lines | 2,000 | 1,722 | 1,500 | 1,885 | 1,917 | 2,000 | 1,826 |
| Power and gas, total | 1,604 | 1,429 | 1,368 | 1,696 | 1,753 | 1,766 | 1,782 |
| Electric light and power | 1,614 | 1,381 | 1,349 | 1,726 | 1,782 | 1,801 | 1,827 |
| Gas | 1,584 | 1,527 | 1,402 | 1,639 | 1,698 | 1,698 | 1,695 |
| Communication, total | 1,357 | 1,328 | 1,225 | 1,485 | 1,544 | 1,563 | 1,590 |
| Telephone | 1,382 | 1,371 | 1,263 | 1,553 | 1,611 | 1,619 | 1,655 |
| Telegraph | 1,245 | 1,118 | 1,046 | 1,187 | 1,212 | 1,277 | 1,265 |
| Trade, total | 1,588 | 1,315 | 1,190 | 1,378 | 1,390 | 1,400 | 1,411 |
| Retail trade | 1,384 | 1,153 | 1,055 | 1,224 | 1,227 | 1,235 | 1,239 |
| Wholesale trade | 2,084 | 1,703 | 1,511 | 1,715 | 1,740 | 1,757 | 1,791 |
| Finance, total [2] | 1,818 | 1,656 | 1,595 | 1,759 | 1,717 | 1,726 | 1,748 |
| Banking | 1,740 | 1,719 | 1,632 | 1,826 | 1,850 | 1,879 | 1,893 |
| Insurance | 1,864 | 1,572 | 1,502 | 1,759 | 1,701 | 1,706 | 1,726 |
| Security, brokerage, and real estate | 1,849 | 1,744 | 1,744 | 1,685 | 1,591 | 1,586 | 1,622 |
| Government, total | 1,517 | 1,466 | 1,344 | 1,455 | 1,507 | 1,511 | 1,490 |
| Federal [3] | 1,622 | 1,573 | 1,428 | 1,603 | 1,627 | 1,603 | 1,493 |
| State | 1,208 | 1,280 | 1,220 | 1,258 | 1,262 | 1,274 | 1,261 |
| City | 1,623 | 1,623 | 1,457 | 1,545 | 1,668 | 1,660 | 1,711 |
| County, township, and minor units | 1,399 | 1,391 | 1,273 | 1,326 | 1,356 | 1,343 | 1,379 |
| Public education | 1,463 | 1,374 | 1,276 | 1,371 | 1,445 | 1,481 | 1,493 |
| Service, total | 1,103 | 881 | 810 | 942 | 943 | 959 | 976 |
| Professional service [2] | 1,225 | 1,128 | 1,052 | 1,091 | 1,090 | 1,099 | 1,112 |
| Personal service [2] | 1,241 | 939 | 838 | 1,025 | 1,031 | 1,062 | 1,092 |
| Recreation and amusement [2] | 1,823 | 1,712 | 1,560 | 1,736 | 1,682 | 1,690 | 1,672 |
| Business service [2] | 1,974 | 1,687 | 1,539 | 1,748 | 1,814 | 1,850 | 1,873 |
| Miscellaneous and domestic service [2] | 833 | 573 | 531 | 664 | 638 | 647 | 662 |
| Miscellaneous, total | 1,462 | 1,131 | 1,054 | 1,296 | 1,219 | 1,293 | 1,326 |
| Memorandum: Bureau of Labor Statistics cost-of-living index | 100.0 | 79.7 | 75.4 | 83.8 | 82.3 | 81.1 | 81.8 |

[1] Does not include unpaid family labor.
[2] See note on corresponding item, table 3.
[3] Does not include work-relief employees.

The average compensation of wage earners and salaried employees was smaller in 1940 than in 1929, as was the total of salaries and wages, the estimate for 1929 being $1,472, and for 1940, $1,351. However, as in the case of the total of salaries and wages, this reduction should be viewed in the light of the changes in the cost of living. Such an adjustment indicates a significant increase in average compensation. In a few of the industrial divisions, however, there were such sharp reductions as to more than counterbalance the effect of the lower cost of living. This is true, for example, of anthracite mining and contract construction, the comparatively large reductions in these groups being mainly attributable to reductions of hours and a relatively large increase in part time. In agriculture and in miscellaneous and domestic service, the reductions in average compensation also exceeded the reduction in cost of living, but in these groups the decline in average compensation was more largely a result of the tendency in these groups for rates of pay to fall below the general levels.

## UPWARD TREND IN CANADA'S NATIONAL INCOME, 1939 AND 1940

THE preliminary estimate of the national income of Canada for 1940 was $4,800,000,000 as computed by the Dominion Bureau of Statistics and $4,594,000,000 according to the Royal Commission (Sirois) on Dominion and Provincial Relations. The 1939 estimates from the same sources are respectively $4,409,000,000 and $4,040,000,000. The figures for preceding years as far back as 1926 are given in the following table from the May 3, 1941, issue of Foreign Commerce Weekly, published by the United States Bureau of Foreign and Domestic Commerce.

***Estimates of the National Income of Canada***

[In millions of Canadian dollars]

| Year | Dominion Bureau of Statistics ("income produced" method) | Royal Commission (Sirois) on Dominion-Provincial Relations ("income paid out" method) | Year | Dominion Bureau of Statistics ("income produced" method) | Royal Commission (Sirois) on Dominion-Provincial Relations ("income paid out" method) |
|---|---|---|---|---|---|
| 1926 | 4,494 | 4,088 | 1934 | 3,171 | 2,888 |
| 1927 | 4,682 | 4,254 | 1935 | 3,381 | 3,126 |
| 1928 | 5,138 | 4,649 | 1936 | 3,829 | 3,427 |
| 1929 | 5,149 | 4,727 | 1937 | 4,342 | 3,824 |
| 1930 | 4,326 | 4,176 | 1938 | 4,246 | 3,837 |
| 1931 | 3,498 | 3,534 | 1939 | 4,409 | 4,040 |
| 1932 | 2,893 | 2,870 | 1940 (preliminary) | 4,800 | 4,594 |
| 1933 | 2,795 | 2,641 | | | |

# *Vocational Rehabilitation*

## VOCATIONAL REHABILITATION, 1939–40

THE number of rehabilitations of disabled persons reported by the Vocational Rehabilitation Service of the United States Office of Education for 1939–40 was 11,890 as compared with 10,747 in the preceding year, representing a gain of 10.6 percent.[1] The increase during the past decade has been as follows:

| | *Increase over previous year* | | *Increase over previous years* |
|---|---|---|---|
| 1931 | 5,184 | 1936 | 10,338 |
| 1932 | 5,592 | 1937 | 11,091 |
| 1933 | 5,613 | 1938 | 9,884 |
| 1934 | 5,062 | 1939 | 10,747 |
| 1935 | 9,422 | 1940 | 11,890 |

Total expenditures for rehabilitation amounted to $4,107,805, an increase of $116,141 over 1939 and $245,642 over 1938. The average cost per case was $345, as compared with $371 in 1939 and $392 in 1938.

Of the persons rehabilitated, 75.7 percent were given training. The proportion retrained has risen steadily since 1934 when only 50 percent of the rehabilitants received training. Increased attention was given to the retraining of younger persons and those with better education rather than to the older men injured in industry. In 1940, 25.8 percent of the rehabilitants were females as compared with 21.7 percent in 1937; and 67.1 percent were unmarried as compared with 62.7 percent in 1937. On the other hand, 37.7 percent had less than 10 grades of education in 1940, while 45.4 percent were in this classification in 1937; and 17.8 percent were employment-accident cases as compared with 21.7 percent in 1937.

The decreased emphasis on industrial cases is shown in the following table giving types of disabilities of the persons receiving retraining in the past 4 years.

[1] Vocational Rehabilitation during 1939–40; a Statistical Analysis, by Robert E. Thomas, Special Agent, Vocational Rehabilitation Division, Washington, D. C. (In National Rehabilitation News, Chicago, April 1941.)

*Types of* ***Disability of Vocational Rehabilitation Service Cases, by Year, 1937 to 1940***

| Disability | Percent of rehabilitants | | | |
|---|---|---|---|---|
| | 1937 | 1938 | 1939 | 1940 |
| Amputation | 30.6 | 29.2 | 24.5 | 20.5 |
| Orthopedic disablement | 44.0 | 44.2 | 46.8 | 48.3 |
| Vision | 6.1 | 6.5 | 6.5 | 7.6 |
| Hearing | 7.7 | 8.5 | 9.2 | 9.4 |
| Tuberculosis | 5.3 | 6.4 | 6.8 | 7.7 |
| Cardiac | 1.9 | 1.5 | 2.2 | 2.7 |
| Other | 4.4 | 3.7 | 4.0 | 4.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |

The percentage of persons rehabilitated through "appliance only" decreased steadily during the past 4 years, or from 22 percent in 1937 to 9.7 percent in 1940.

A total of 47,174 live-roll cases were reported by the States on June 30, 1940, an increase of 1 percent over the number reported at the end of 1939. The classification of cases by status on June 30, 1940, was as follows:

| | *Number* | *Percent,* |
|---|---|---|
| All live-roll cases | 47, 174 | 100. 0 |
| Interviewed | 15, 174 | 32. 2 |
| Plan completed | 2, 690 | 5. 7 |
| Medical or surgical treatment | 469 | 1. 0 |
| Appliance authorized | 745 | 1. 6 |
| School training | 11, 040 | 23. 4 |
| Employment training | 2, 313 | 4. 9 |
| Other training | 1, 292 | 2. 7 |
| Ready for employment—prepared | 5, 451 | 11. 5 |
| Ready for employment—placement only | 1, 119 | 2. 4 |
| In employment, temporary | 1, 399 | 3. 0 |
| In rehabilitation employment | 1, 952 | 4. 1 |
| Training interrupted | 3, 250 | 6. 9 |
| Other service interrupted | 280 | . 6 |

# *Labor Laws and Court Decisions*

## COMPARISON OF DAVIS-BACON AND WALSH-HEALEY ACTS

By ARTHUR DADIAN, *Bureau of Labor Statistics* [a]

*Summary*

CONTRACTS awarded by the Federal Government in connection with the national defense program have given a new impetus and direction to the productive activities of the Nation in recent months. The Davis-Bacon Act (Prevailing-Wage Act) and the Walsh-Healey Act (Public Contracts Act) stipulate the Government's measures of control over the conditions of labor in the performance of the contracts it awards. Because of the volume and diversity of goods being currently produced under Federal contracts, the coverage and provisions of these acts are here reviewed.

The points of similarity and difference in the principal labor provisions of the two acts can be summarized briefly. The Davis-Bacon Act applies to Federal contracts in excess of $2,000 for construction and repair of public buildings and public works. The Walsh-Healey Act, on the other hand, is applicable to contracts in excess of $10,000 awarded for the manufacture or furnishing of materials and equipment. By a special statute, contracts for the construction of naval vessels for the Navy Department were placed under the Walsh-Healey Act.

A laborer or mechanic is covered by the Davis-Bacon Act only if he is actually employed at the site of construction. A worker is covered by the Walsh-Healey Act if he is employed by the contractor, if he is employed by a manufacturer supplying materials directly to the Government under a contract awarded to a dealer, or if he is employed by one manufacturer performing work required under a contract awarded to another manufacturer which in the normal course of business the contracting manufacturer would have done in his own plant. Thus, employees of subcontractors are not subject to the Walsh-Healey provisions unless the subcontract is for work which under the usual practice of the industry involved, is not, subcontracted.

The Davis-Bacon Act stipulates that the Secretary of Labor shall determine the hourly rates prevailing in the immediate neighborhood

[a] Prepared under the direction of Herman B. Byer, chief of the Division of Construction and Public Employment, United States Bureau of Labor Statistics.

of the construction site for each occupation and that these shall be the minimum rates for the various classes of laborers and mechanics. Under the Walsh-Healey Act, the Secretary of Labor determines only the prevailing minimum rate for an industry, rather than for each of the various occupations, and in most instances a single minimum rate has been in effect for an entire industry, regardless of where the goods were being produced.

In the Davis-Bacon Act, no mention is made of hours of labor, extra pay for overtime, child or convict labor, or working conditions. Under the Walsh-Healey Act not less than time and a half must be paid for all work in excess of 8 hours a day or 40 hours in any 1 week; this act also prohibits the employment of convict and child labor and requires that safe and sanitary working conditions be maintained.

## *Comparison of Coverage and Labor Provisions*

To facilitate comparison of the two acts, the sections relating to the coverage and labor provisions of each are shown in juxtaposition in the accompanying table.

***Comparison of Coverage and Labor Provisions of Bacon-Davis and Walsh-Healey Acts***

| Item | Pervailing-Wage Act (Davis-Bacon Act) | Public Contracts Act (Walsh-Healey Act) |
|---|---|---|
| Citation | 46 Stat. 1494, ch. 411 (Mar. 3, 1931), as amended by Act of August 30, 1935, 49 Stat. 1011–1013, ch. 825; 40 U. S. C., sec. 276 (a), and Act of June 15, 1940, Public No. 633, 76th Congress, ch. 373. | 49 Stat. 2036–2039, ch. 881 (June 30, 1936). 41 U. S. C., 35–45, as amended by Act of May 17, 1938; 52 Stat. 403; and 34 U. S. C., sec. 498 (k). |
| Contracts covered. | "* * * every contract in excess of $2,000, to which the United States or the District of Columbia is a party, for construction, alteration, and/or repair, including painting and decorating, of public buildings or public works of the United States or the District of Columbia within the geographical limits of the States of the Union, the Territory of Alaska, the Territory of Hawaii, or the District of Columbia, * * *" (sec. 1.). | "* * * any contract made * * * by any executive department, independent establishment, or other agency or instrumentality of the United States, or by the District of Columbia, or by any corporation all the stock of which is beneficially owned by the United States, * * * for the manufacture or furnishing of materials, supplies, articles and equipment in any amount exceeding $10,000 * * *" (sec. 1). |
| Contractors covered. | No definition of "the contractor or his subcontractors * * *" (sec. 1.). | Each contract stipulates that "* * * the contractor is the manufacturer of or a regular dealer in the materials, supplies, articles, or equipment to be manufactured or used in the performance of the contract." (sec. 1 (a)). |
| Employees covered. | "* * * all mechanics and laborers employed directly upon the site of the work, * * *" (sec. 1). | "* * * all persons employed by the contractor in the manufacture or furnishing of the materials, * * * used in the performance of the contract * * *" (sec. 1 (b)). |
| Wage rates | "* * * the advertised specifications [1] * * * shall contain a provision stating the minimum wages to be paid various classes of laborers and mechanics which shall be based upon the wages that will be determined by the Secretary of Labor to be prevailing for the corresponding classes of laborers and mechanics employed on projects of a character similar to the contract work in the city, town, village, or other civil subdivision of the State in which the work is to be performed * * *" (sec. 1). | "* * * all persons employed by the contractor * * * will be paid * * * not less than the minimum wages as determined by the Secretary of Labor to be the prevailing minimum wages for persons employed on similar work or in the particular or similar industries or groups of industries currently operating in the locality in which the materials * * * or equipment are to be manufactured or furnished * * *" (sec. 1 (b)). |

[1] By virtue of Public No. 22—77th Cong., 1st Sess., approved March 23, 1941, the Davis-Bacon Act is applicable to a contract entered into without advertising for bids, "if such act would otherwise be applicable to such contract."

*Comparison of Coverage and Labor Provisions of Bacon-Davis and Walsh-Healey Acts*—Continued

| Item | Prevailing-Wage Act (Davis-Bacon Act) | Public Contracts Act (Walsh-Healey Act) |
|---|---|---|
| Hours of work | No provision | "* * * no person * * * shall be permitted to work in excess of 8 hours in any 1 day or in excess of 40 hours in any 1 week; * * *" (sec. 1 (c)). |
| Child and convict labor. | No provision | "* * * no male person under 16 years of age and no female person under 18 years of age and no convict labor will be employed * * *" (sec. 1 (d)). |
| Working conditions. | No provision | "* * * no part of such contract will be performed * * * in any plants, factories, buildings, or surroundings or under working conditions which are unsanitary or hazardous or dangerous to the health and safety of employees * * *" (sec. 1 (e)). |

## CONTRACTS COVERED

When confronted with the problem of constructing or repairing public buildings and public works or of purchasing supplies and equipment, the United States Government has several methods of procedure open to it: (1) It may hire workers directly to produce what is needed, as it does at the navy yards and arsenals. (2) It may participate in some types of construction projects by means of Federal-aid contracts which are let by the States or their political subdivisions. The Public Roads Administration, the United States Housing Authority, the Rural Electrification Administration, the Farm Security Administration, the Work Projects Administration, and the Public Works Administration are examples of Federal agencies which operate by means of Federal-aid contracts. (3) Under special circumstances and for a few specified items [1] the Government may make purchases on the open market without any previous announcement and without competitive bidding. (4) It may let contracts directly to a private contractor who agrees to construct, manufacture, or furnish to the contracting Federal agency the items covered by the contract.

Although the Government has some measure of control over conditions of employment of workers whose output it obtains by any one of these four methods, the Davis-Bacon and Walsh-Healey Acts apply only under the fourth procedure listed—the letting of contracts. Three types of contracts are subject to these acts: Bid contracts, negotiated contracts, and principal-and-agent contracts.

"Bid contracts" refer to those for which invitations for bids are issued. The language of the Davis-Bacon Act on this point is "the advertised specifications for every contract" and that of the Walsh-Healey Act, "any contract."

[1] "All purchases and contracts for supplies or services, in any of the Departments of the Government, except for personal services, shall be made by advertising a sufficient time previously for proposals respecting the same, when the public exigencies do not require the immediate delivery of the articles or performance of the service * * *." (41 U. S. C., sec. 5.)

The present emergency has brought into use the "negotiated contract." To expedite national defense, Congress in its authorization and appropriation acts [2] has authorized most Federal defense agencies to negotiate or let contracts with or without advertising or competitive bidding, upon determination that the price is fair and reasonable. This change, however, does not render the provisions of the Walsh-Healey and Davis-Bacon Acts inapplicable to contracts to which the provisions of either or both acts would otherwise apply.

The emergency has also brought into use the "agency contracts" let for the Defense Plant Corporation. Created in 1940 under an amendment [3] to section 5 (d) of the Reconstruction Finance Corporation Act [4] the Defense Plant Corporation builds and equips plants necessary for national defense and leases them to private manufacturers.[5] With the approval of the Defense Plant Corporation, the manufacturer for whom a plant is to be built makes the necessary plans for the construction and equipment of the plant and lets the contracts for them. These contracts are let after competitive bidding. In these contracts the lessee manufacturer acts as the agent or representative of the Defense Plant Corporation. Instead of contracting directly with the contractors, the Defense Plant Corporation contracts through an agent (i. e., the manufacturer for whom the plant is to be built) because the lessee manufacturer is familiar with the industry, the intricacies of the contract work, and the qualifications of the contractors. In this way greater speed and better results are attained. In its lease agreement with the Defense Plant Corporation the lessee manufacturer agrees to comply with all Federal laws applicable to the contract work and to bind its contractors to do likewise.

Contracts in excess of $2,000 for "the construction, alteration, and/or repair of public buildings or public works," which are subject to the provisions of the Davis-Bacon Act, include contracts for such work on privately owned buildings which have been leased [6] by the United States Government. All structures, whether owned or leased by the Government, must be located within the geographical limits of the 48 States, the District of Columbia, or the Territories of Alaska and Hawaii if work on them is to come within the scope of the Davis-Bacon Act.[7] The demolition of existing structures is not subject to this act.[8]

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[2] Public Resolution No. 106, Public Act No. 671, Public Act No. 703 and Public Act No. 781 (sec. 302), all of the 76th Cong.; and Public Act No. 22, 77th Cong., approved Mar. 23, 1941, respecting Davis-Bacon Act only (see footnote to table, p. 123).

[3] Public Act No. 664, 76th Cong.

[4] 15 U. S. C., sec. 606b.

[5] D. P. Form No. 2 (Rev. 1/16/41), Master Agreement of Lease, Defense Plant Corporation, pars. 2, 3, 8, 9, and 12.

[6] 17 C. G. 283 (A-89137), Sept. 25, 1937.

[7] The Davis-Bacon Act as amended by Public Act No. 633, 76th Cong., ch. 373, 3d sess., "An Act to Require the Payment of Prevailing Rates of Wages on Federal Public Works in Alaska and Hawaii."

[8] 38 Op. Atty. Gen. 229 (1935).

The Walsh-Healey Act applies to any contract for the manufacture or furnishing of materials, supplies, articles, and equipment in any amount which exceeds or may exceed $10,000. Contracts for personal services such as laundry and dry cleaning and for rental of real estate are not covered by the act.[9] On the other hand, contracts for stock on hand [10] are contracts for "furnishing of" articles, and the handling, though not the manufacturing, of such items comes under the act. Assembling of parts [11] is regarded as a manufacturing process and, therefore, comes under the act. The amount which determines the application of the Walsh-Healey Act is the price for the total deliveries which the contracting officer may demand under the contract, and cannot be changed by trade-in allowances, trade discounts, transportation charges, or installment delivery.[12]

The scope of the Walsh-Healey Act is further limited by the statutory requirements and exemptions in sections 8 and 9 of the act. Section 8 stipulates that the provisions of this act shall not be construed to modify or amend the Buy American Act, the Davis-Bacon Act, section 7 of the Emergency Relief Appropriation Act, or "An act for the diversification of employment of Federal prisoners." Section 9 exempts from the act purchases of such materials and supplies as may usually be bought in the open market;[13] perishables; agricultural or farm products processed for first sale by the original producers; any contracts made by the Secretary of Agriculture for the purchase of agricultural commodities or the products thereof; and the carriage of freight or personnel by vessel, airplane, bus, truck, express, or railway line where published tariff rates are in effect. Common carriers subject to the Communications Act of 1934 are also not affected by the provisions of the Walsh-Healey Act.

The following general exemptions from the provisions of the Walsh-Healey Act have been made by the Secretary of Labor under authority granted by section 6 of the act:

> Contracts for public-utility services including electric light and power, water, steam, and gas; contracts which are to be performed outside the geographic limits of the United States, its territories, and the District of Columbia, except where such performance requires a shipment from within such geographic limits; and contracts covering purchases against the account of a defaulting contractor where the stipulations required herein were not included in the defaulted contract.[14]

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[9] U. S. Department of Labor. Walsh-Healey Public Contracts Act, Rulings and Interpretations, No. 2 (p. 13). Washington, September 29, 1939.

[10] Idem, p. 3.

[11] Idem, p. 12.

[12] Idem, p. 14.

[13] "Open-market purchases are those permitted by statute to be made without advertising for bids." (U. S. Department of Labor. Walsh-Healey Public Contracts Act, Rulings and Interpretations, No. 2 (p. 12). Washington, Sept. 29, 1939.)

Public Resolution No. 106, Public Act No. 671, Public Act No. 703, and Public Act No. 781 (sec. 302), 76th Cong., require the insertion of the stipulations of the Public Contracts Act even though the contracts entered into pursuant to those acts are negotiated and not advertised.

[14] U. S. Department of Labor. Walsh-Healey Public Contracts Act, Rulings and Interpretations, No. 2 (p. 44). Washington, September 29, 1939.

Under the Davis-Bacon Act the location of the contract work must be known and stated both in the invitation for bids and in the final contract. Knowledge of the location of the contract work is essential because the act applies only to the laborers and mechanics employed on the site of the contract work. If the site is not known, the Secretary cannot determine the appropriate prevailing rates. The location of the contract work need not be known under the Walsh-Healey Act because the provisions of the act included in the invitation for bids will apply to any contractor irrespective of where he may perform the work.

The location of the work has had an important bearing on the application of the two acts to contracts for boats and ships. It has been ruled that small boats, canoes, rowboats, and launches are "manufactured" and not "constructed." [15] The provisions of the Walsh-Healey Act, therefore, apply to employment on such small vessels. The larger vessels were not originally covered by the Walsh-Healey Act because such vessels are not manufactured but constructed. The provisions of the Davis-Bacon Act apply to the construction of these large vessels only if the site of work is known at the time the invitation for bids is issued.[15] In the case of almost all invitations for bids for construction of large vessels the site of work is not known at the time the invitation is issued. Hence, the provisions of the act are not included in the invitation or the contract. Thus, the construction of large vessels was formerly beyond the scope of both acts. Effective July 1, 1938, Congress remedied the situation somewhat by extending the scope of the Walsh-Healey Act to include contracts for the construction, alteration, repair, furnishing, and equipping of naval vessels for the Navy Department.[16] This extension of the act applies not to the manufacture or furnishing of materials to the contracting firms but only to the work done directly by the contracting firm.

Some contracts let by the Government involve not only "manufacture or furnishing" but also "construction, alteration, and/or repair." Such contracts raise the question whether either or both of the acts apply. Contracts for the construction, alteration, or repair of public works including buildings, bridges, and ships (other than United States naval vessels) are not subject to the Walsh-Healey Act; and contractors on such jobs may use materials, supplies, articles, and equipment manufactured or furnished by them without complying with the Walsh-Healey Act in any of their operations. Contracts ordinarily awarded to manufacturers of or dealers in articles or equipment which require erection or installation after delivery are subject to the Walsh-Healey Act if the amount of the contract exceeds or may exceed $10,000 and may also be subject to the Davis-Bacon Act with

[15] 38 Op. Atty. Gen. 418 (1936); 17 C. G. 585 (A-90983), Jan. 21, 1938.
[16] Supp. V. to U. S. Code 1934, title 34, sec. 498k.

respect to any work of installation or erection if the site of such work is known. For example, a contract for a generator is ordinarily awarded to a manufacturer. The Walsh-Healey Act applies to all persons employed by the manufacturer on the manufacture and shipping of the generator, and the Davis-Bacon Act applies to all laborers and mechanics employed on the installation of the generator on the Government site.

### CONTRACTORS COVERED

Both the contractor and his subcontractors, if they have laborers or mechanics working at the construction site, are bound by the provisions of the Davis-Bacon Act. The application of this act depends not upon whether the bidder has contracted with the Government but whether he has workmen at the site of construction.

A contract let under the Walsh-Healey Act must include the stipulation that "the contractor is the manufacturer of or a regular dealer in the materials, supplies, articles, or equipment to be manufactured or used in the performance of the contract." [17] If he is a manufacturer,[18] the provisions of the act will apply to all those employed on the manufacture and furnishing of the item covered by the contract. If, on the other hand, the successful bidder is a dealer,[18] the provisions of the act will apply only to those employed by the dealer to handle the finished product and to employees of the manufacturer who ships directly to the Government under this contract.

A dealer may fill the contract from his stock on hand or have the product manufactured after he makes the contract with the Government. If a manufacturer makes delivery directly to the Government under a contract awarded to a dealer, then the manufacturer is bound by the provisions of the Walsh-Healey Act because the dealer in such an instance is deemed to be an agent of the manufacturer.[19]

A contractor under the Walsh-Healey Act will, however, be liable for the actions of the subcontractor if the contractor has had the subcontractor do work which the contractor normally would do himself in

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[17] Sec. 1 (a) of the act.

[18] "A manufacturer is a person who owns, operates, or maintains a factory or establishment that produces on the premises the materials, supplies, articles, or equipment required under the contract and of the general character described by the specifications.

"A regular dealer is a person who owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles, or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and sold to the public in the usual course of business." (U. S. Department of Labor. Walsh-Healey Public Contracts Act, Rulings and Interpretations, No. 2 (p. 41). Washington, Sept. 29, 1939.)

[19] "Whenever a dealer, to whom a contract within the act and regulations has been awarded, causes a manufacturer to deliver directly to the Government the materials, supplies, articles, or equipment required under the contract, such dealer will be deemed the agent of the manufacturer in executing the contract. As the principal of such agent the manufacturer will be deemed to have agreed to the stipulations contained in the contract." (U. S. Department of Labor. Walsh-Healey Public Contracts Act, Rulings and Interpretations No. 2 (pp. 42, 43). Washington, Sept. 29, 1939.)

the regular practice of the industry of which he is a member.[20] If the contractor-manufacturer operates integrated establishments and performs more operations than is customary in the industry, all of the provisions of the act will apply to the work performed throughout his integrated establishments, except the minimum-wage provisions which will apply only to the operations performed within the customary confines of the industry for which it was established. If, for example, a furniture manufacturer maintains his own veneer mill, then all the provisions of the act with the exception of the minimum-wage provision for furniture will apply to the operations in the veneer mill. The minimum wage for furniture will not apply to the veneer mill, since furniture companies are not generally so integrated that they maintain their own veneer mills.[21]

### EMPLOYEES AFFECTED

Aside from the distinctions between the coverage of the acts, already mentioned, such as the place of performance of the contract and the direct or indirect relationship of the contractor to the Government, there is another difference between the applicability of the Davis-Bacon and Walsh-Healey Acts to individual workers. This difference arises from the manner in which the Secretary is directed to determine wages. Under the Davis-Bacon Act the Secretary is required to determine rates for the various classes of laborers and mechanics. Under the Walsh-Healey Act the Secretary determines only the prevailing minimum wage for the industry. Thus, on contracts for manufactured products only the wage rate for the lowest-paid class of workers engaged in or connected with the manufacturing processes is determined, whereas on construction contracts individual occupational rates are established. In other words, under the Davis-Bacon Act rates for all laborers and mechanics on the construction site are set in accordance with the Secretary's findings, while through the Walsh-Healey procedure a specific rate is established for only the lowest-paid manufacturing employees in a manufacturing plant.[22] However, the application of a legal minimum rate may have an economic effect on the wages paid to other workers who previously earned as much as or more than the legal minimum.

[20] U. S. Department of Labor. Walsh-Healey Public Contracts Act, Rulings and Interpretations, No. 2 (p. 18). Washington, September 29, 1939.

[21] Idem, p. 2.

[22] For example, the recommendations of the Public Contracts Board in the determination of the prevailing minimum wage in the uniform and clothing industry (dated Dec. 18, 1940) states (p. 3): "In view of the appearance of 8.6 percent of the workers below 40 cents, we select the lower point of the 40- to 45-cent interval and find 40 cents an hour to be the prevailing minimum wage in the uniform and clothing industry."

### HOURLY WAGE RATES

Under both acts the wages are set in terms of prevailing hourly rates. The wages of a given employee must average the hourly rate set for the occupation or industry, regardless of whether he is paid by the month, day, or piece. Since the Davis-Bacon Act requires (sec. 1) that the employees be paid once a week, it seems to follow that the "averaging-out" period may not be longer than a week. The Walsh-Healey Act specifies no such period of time, but it has been ruled that the wage requirements of the act will be met as long as the weekly wage paid to the employee for the week in which he does any Government contract work does not average less per hour than the applicable minimum wage.

In addition to providing separate rates for individual occupations rather than a single minimum for an industry, the application of the Davis-Bacon Act results in more specific limits on the area and type of project to which a given set of rates shall apply than does the Walsh-Healey Act.

Under the Davis-Bacon Act the wage determinations of the Secretary are based on the wages prevailing in the city, town, village, or the county in which the project is to be located and the wage determinations do not apply to similar projects outside this area. This restriction was included in the act in order to maintain the existing wage rates in a locality and to eliminate unfair competition from without. When the act was passed in 1931, local building trades were facing competition from "imported" labor living in work camps and from the general decline in wages resulting from the slackening of activity in the construction industry. Also, the economics of the construction industry lends itself to such a restriction of the locality. The site of work is fixed and stationary. All bidders will have to perform their contract work on the same site. In most cases the laborers and mechanics are hired from the locality of the work. The restriction of the area protects local labor, without giving any contractor an unfair advantage over his competitors.

Furthermore, on a contract for a post office, for example, under the Davis-Bacon Act the Secretary must be guided not by the wages of laborers employed on a road or a bridge project in that locality, but by the wages of laborers on projects that require the same type and degree of skill. This restriction is not always practicable, however. In the case of large projects like the Grand Coulee Dam the Secretary has no similar project in the locality on which to base the wage rates applicable to the dam and must necessarily extend the limits of the investigation beyond the immediate area.

As a result of these limitations, each contract under the Davis-Bacon Act is an entity in itself. Almost every contract let under the

Davis-Bacon Act must have a separate and distinct wage schedule. Consequently, the Davis-Bacon Act is less rigid and more sensitive to changes in wage rates than the Walsh-Healey Act. This is especially true in times of changing wage scales. Under the Walsh-Healey Act, once a minimum rate has been determined for an industry all the contracts let to firms in that industry will automatically include the predetermined rate for that industry.

The Walsh-Healey Act also requires (sec. 1 (b)) that the Secretary be guided by the rates for "similar work or in the particular or similar industries or groups of industries currently operating in the locality." However, the requirement in this act is not so significant in practice as that in the Davis-Bacon Act because under the Walsh-Healey Act a minimum rate is established for the entire industry, whereas under the Davis-Bacon Act a prevailing wage rate is established for each occupation and for each grade within that occupation.

The word "locality" is not defined in the Walsh-Healey Act and has not been definitely interpreted by the Public Contracts Division of the Labor Department. The strict interpretation of the word "locality" is impracticable; it would be a tremendous task to predetermine innumerable local rates and to include them all in the invitations for bids. Also, the economics of the act prohibits a narrow interpretation of the word. Since a shoe manufacturer in St. Louis, Mo., and a shoe manufacturer in Brockton, Mass., sell in the same market, it would be giving an unfair competitive advantage to allow one of these manufacturers to pay lower wages than the other because of the difference in the location of the factory. For these reasons the area to be covered by the word "locality" has been expanded to mean a large area, in some cases the whole of the United States. Out of the 35 industries for which wage determinations had been made by April 5, 1941, 26 had one minimum rate for the country as a whole.[23]

The broad interpretation given to the word "locality" in the Walsh-Healey Act has been sustained by the recent decision of the United States Supreme Court in the case of *Perkins* v. *Lukens Steel Co.*[24]

Under the Davis-Bacon Act the Secretary determines the wages prevailing in the locality of the work from the evidence and recommendations submitted by the Solicitor of the Department of Labor. In securing the necessary evidence the Solicitor must (a) "ascertain whether" the Department of Labor or any other Federal Department or Agency "has made any previous wage determinations in the locality" with respect to the same crafts for which predetermination is requested; (b) "ascertain whether the files of the Department contain

[23] U. S. Department of Labor. Analysis of Minimum Wage Determinations of the Secretary of Labor Pursuant to the Public Contracts Act of June 30, 1936.

[24] 84 L. Ed. 1108; 310 U. S. 113.

any data with respect to wage rates in the locality; and (c) collect * * * other pertinent data." [25]

Whenever the Solicitor deems such data insufficient to enable the Secretary to make a determination with respect to all the crafts specified in the request of the contracting officer, he shall, in writing, appoint a referee who shall proceed to the locality of the project and conduct an investigation into the wages paid the crafts, concerning which there is sufficient data, and make a report.[26]

For the determination of minimum wages under the Walsh-Healey Act, the Secretary created the Public Contracts Board in the Division of Public Contracts. Before a wage determination is made, this 3-member Board holds public hearings at which appear the representatives of employers and employees of the industry, examines the wage studies made by the governmental agencies [27] or private organizations, and makes independent studies of its own. After the available data have been analyzed and the hearings closed, the Board makes its recommendations to the Secretary of Labor. All interested parties in the industry, employers and labor groups, are sent copies of this report and are given a definite period in which to file their objections. The Secretary of Labor then makes the final determination which is based on the recommendations of the Public Contracts Board and the briefs submitted by employees and employers.[27] The wage rate so determined is published in the Federal Register and sent to contracting officers through circular letters of the Procurement Division of the Treasury. After such determinations become effective, all contracting agencies must include the prescribed minimum wages in all contracts to which the minimum wage is applicable.[28]

The minimum-wage provisions of the Walsh-Healey Act do not apply to contracts let to industries for which the Secretary of Labor has not determined the prevailing minimum wages.[29] Under the Davis-Bacon Act (sec. 1) the wage rates must be predetermined and included in the invitation for bids and in the final contract. In this respect there is a basic difference between the two acts. Invitations for bids on contracts for the manufacture and furnishing of materials may be issued and the final contract let without any prevailing wages stipulated, if the minimum wage has not yet been determined for the industry.

### HOURS OF WORK AND OVERTIME

The Davis-Bacon Act does not contain any reference to hours of employment nor does it specifically provide for payment of overtime,

[25] U. S. Department of Labor. Office of the Secretary. No. 503: Regulations Prescribed by the Secretary of Labor as to the Procedure to be Followed in Predetermining Prevailing Rates of Wages (sec. 3 (a, b, c)). Washington, September 30, 1935.

[26] Idem, sec. 4.

[27] U. S. Senate. Senate Document No. 186 (76 Cong., 3d sess.): Administrative Procedure in Government Agencies, Pt. I: Division of Public Contracts, Department of Labor, the Walsh-Healey Act, pp. 24–26.

[28] U. S. Department of Labor. Bulletin No. 39: Handbook of Federal Labor Legislation. Pt. I, p. 23.

[29] Section 11 of act.

because these subjects had been covered previously by the Eight-Hour-Day Act,[30] limiting the hours of laborers and mechanics on public buildings and public works of the United States or the District of Columbia. Legislation approved September 9, 1940, amended that law to permit work in excess of 8 hours per day, provided that for all hours over this number compensation should be paid "at not less than one and one-half times the basic rate of pay." [31]

The Walsh-Healey Act and the Secretary's regulations thereunder permit the working of unlimited hours, provided that at least time and one-half is paid for all hours in excess of 8 in any 24-hour period or in excess of 40 in the week, whichever is greater.[32] Under the authority granted by this act the Secretary of Labor has determined that "the rate of pay for * * * overtime shall be one and one-half times the basic hourly rate or piece rate." [33] The act does not require the payment of overtime for Sunday or holiday work as such.[32] Although, as has been pointed out, the minimum-wage provisions of this act directly benefit only those receiving below the minimum, the overtime rate applies to all those employed on the contract work.

### CHILD AND CONVICT LABOR

The Davis-Bacon Act does not mention child labor because the need for skill and physical strength on construction work automatically eliminates such labor. As for convict labor, "It is the general practice of Federal agencies letting construction contracts to insert a clause in such contracts prohibiting the employment of convict labor by the contractor. The Government representative on the job is responsible for seeing that this is observed." [34] Furthermore, the prevailing-wage requirement removes the incentive to employ child or convict labor. No contractor will employ convict labor if he is required to pay such workers the same wages as free, skilled laborers.

The Walsh-Healey Act prohibits the use of convict labor as well as that of boys under 16 and girls under 18 years of age.

### WORKING CONDITIONS

Although the Davis-Bacon Act has no specific provisions on working conditions to be maintained on contracts covered by the act, a partial protection against hazardous conditions of work is provided

[30] Act of Aug. 1, 1892, ch. 352; 27 Stat. 340, as amended by Act of Mar. 3, 1913, ch. 106, 37 Stat. 726, Act of June 19, 1912, ch. 174; 37 Stat. 137, Act of Mar. 4, 1917, ch. 180; 39 Stat. 1192; 40 U. S. C., secs. 321-326.

[31] Public No. 781, 76th Cong., 3d sess. (approved Sept. 9, 1940), sec. 303. Additional legislation suspending the Eight-Hour Act provided at least time and one-half is paid for all hours worked in excess of 8 per day, has also been enacted with respect to certain individual Federal agencies: Public No. 831, ch. 838, approved October 10, 1940 (U. S. Maritime Commission); Public No. 849, ch. 862, approved October 14, 1940, with respect to defense housing.

[32] Section 1 (c) and section 6 of the act; and U. S. Department of Labor, Walsh-Healey Public Contracts Act, Rulings and Interpretations, No. 2 (p. 29), Washington, September 29, 1939.

[33] U. S. Department of Labor. Walsh-Healey Public Contracts Act, Rulings and Interpretations, No. 2 (p. 42). Washington, September 29, 1939.

[34] Idem, Bulletin No. 39: Handbook of Federal Labor Legislation, Pt. I, p. 13.

in other ways. The Interdepartmental Safety Council, which includes Federal agencies carrying on the major part of the Government's construction work, has in preparation a safety manual for construction jobs. It is a common practice of Federal agencies letting contracts to incorporate in the "General Conditions" attached to construction contracts, by reference, a "Specification for Accident Prevention" issued by the Public Buildings Administraton as of July 1, 1939.[35] Also, an act of June 25, 1936 (49 Stat. 1938i 40 U. S. C., sec. 290) permits the application of State compensation laws to workers on Federal construction projects who are not covered by the United States Employees' Compensation Act.[36] Furthermore, it is the general practice of the Federal agencies which let contracts, to require the contractor either to take out workmen's compensation insurance or to furnish employer's liability insurance.[36] The insurance companies thus exert a strong regulatory influence on accidents on construction jobs by raising the rates or refusing to insure contractors with high accident rates.

The Walsh-Healey Act requires (sec. 1(e)) that no part of a contract subject to its provisions shall be performed in places or under working conditions which are unsanitary or hazardous or dangerous to the health and safety of employees engaged in the performance of the contract. Compliance with the safety, sanitary, and factory inspection laws of the State in which the work is to be performed is considered prima-facie evidence of compliance with this requirement.

## *Administration and Enforcement*

The Davis-Bacon Act does not create a centralized administrative and enforcing agency. In practice the administration and enforcement of the act are scattered among all the contracting agencies of the United States Government, the Comptroller General, and the Secretary of Labor. The matter of administration is mentioned indirectly at the end of the act where it is stated (sec. 7) that funds "are hereby made available to the Department of Labor for expenses of the administration of this act." The administration and enforcement of the Walsh-Healey Act, on the other hand, are centralized (by sec. 4) in the Division of Public Contracts of the United States Department of Labor.

### RECORDS AND INSPECTIONS

Contractors under the Davis-Bacon Act are not required to keep or submit pay-roll records to the Department of Labor, nor does the Department send out agents to inspect the work performed on con-

[35] U. S. Department of Labor, Bulletin No. 39: Handbook of Federal Labor Legislation, Pt. I, p. 11.
[36] Idem, p. 9.

tracts let under this act. However, the regulations of the Secretary of Labor issued under the Anti-Kick-Back Act [37] require the contractors to send either to the Government representative on the job or directly to the Federal agency which lets the contract, within 7 days after each pay day, a copy of the week's pay roll accompanied by an affidavit certifying the accuracy of the pay roll.[38] This requirement provides an excellent check on work performed under the Davis-Bacon Act. Moreover, the regulations require the affidavits and pay rolls to be transmitted to the Department of Labor "unless otherwise arranged with the Department," after such check is made by the agency.

As a first step in the enforcement of the Walsh-Healey Act the Secretary of Labor requires every contractor subject to the provisions of the act to maintain records of the identity, age, wages, and hours of employment of those working on the contract which shall be made available to inspectors of the Division of Public Contracts.[39]

### POSTING OF STIPULATIONS

To facilitate enforcement as well as to acquaint employees working on Government contracts with their rights under the Davis-Bacon Act and the Walsh-Healey Act, the contractors are required to post the contract stipulations prominently.[40] In the case of violation of workers' rights under the former act, the complaint must first be made to the Government agent on the job or to the contracting agency rather than to the Department of Labor.[41] Consequently, the Department of Labor may never hear of the complaint. If the rights of workers under the Walsh-Healey Act are being violated, the workers can complain directly to the Department of Labor,[42] which can have its agents investigate the complaint.

### SUBPOENA POWER

Under neither the Davis-Beacon nor the Walsh-Healey Act is the power to summon witnesses and to have them testify under oath given with respect to investigations for the purpose of determining minimum wages. The lack of this power has not prevented extensive investigations of existing wage structures. In practice, voluminous material is received by the Secretary of Labor through the voluntary

[37] Act of June 13, 1934, ch. 482; 48 Stat. 948; 40 U. S. C. secs. 276 (b, c).

[38] Regulations Applicable to Contractors and Subcontractors on Public Building and Public Work and on Building and Work Financed in Whole or in Part by Loans or Grants from the United States, issued by the Secretary of Labor, March 1, 1941.

[39] U. S. Department of Labor, Walsh-Healey Public Contract Act, Rulings and Interpretations, No. 2 (p. 30). Washington, September 29, 1939.

[40] Davis-Bacon Act, sec. 1. See also footnote 39.

[41] Davis-Bacon Act, sec. 2.

[42] U. S. Department of Labor. Walsh-Healey Public Contracts Act, Rulings and Interpretations, No. 2 (p. 32). Washington, September 29, 1939.

cooperation of trade associations, labor unions, and individuals in the respective industries.

Under the Walsh-Healey Act (sec. 5) the Secretary of Labor has power to summon witnesses and compel the giving of testimony and production of evidence, under oath, in cases involving alleged breaches of the labor stipulations of a contract. As pointed out above, enforcement of the Davis-Bacon Act is not centralized in the Department of Labor, and there is no corresponding power under that act.

### PENALTIES FOR VIOLATIONS

Contractors violating the labor provisions of contracts awarded under either the Davis-Bacon or Walsh-Healey Acts are subject only to a civil liability.[43]

The decision as to whether or not a contractor operating under the the Davis-Bacon Act has underpaid his employees rests with the contracting agency. If there has been an underpayment, the contracting agency is required (sec. 1) to withhold from the contractor an amount equal to the underpayments. The amounts withheld are distributed directly to the employees concerned by the Comptroller General of the United States. In the event that the underpayment is larger than the amount still unpaid by the contracting agency to the contractor, the employee himself must sue the contractor for the balance (sec. 3 (b)).

The Secretary of Labor decides whether there has been an underpayment of wages under the Walsh-Healey Act. Under this act the contractor owes the amount underpaid to the United States Government, which may withhold the wages due the employees from the amount it owes to the contractor. If the unpaid balance is insufficient to cover the underpayments and collection cannot otherwise be effected, the Attorney General of the United States is authorized to bring suit against the contractor for the same in the name of the United States of America. The amounts withheld or recovered by suit or otherwise from contractors for underpayments are held in a special deposit account and are distributed directly to the employees concerned on order of the Secretary of Labor (sec. 2).

In addition, there is civil liability under the Walsh-Healey Act (sec. 2) for employment of convict and child labor. The contractor is "liable to the United States of America for liquidated damages * * * in the sum of $10 per day" for every convict or child under age "knowingly" employed on the contract work. This sum goes to the Federal Government.

Contractors violating the labor provisions of either act run the risk of having their contracts canceled and of being held liable for the extra

[43] Davis-Beacon Act, secs. 1, 2, 3; Walsh-Healey Act, sec. 2.

cost resulting to the Government in the completion of the contract work. The power to cancel such a contract, however, is a discretionary and not a compulsory one and rests with the contracting agency.[44]

Contractors violating the provisions of either act are automatically placed on the ineligible list for 3 years, and the Comptroller General is required to distribute to all departments and agencies of the Government the names of all violators. Under the Davis-Bacon Act (sec. 3) the Comptroller General determines the list of "persons or firms whom he has found to have disregarded their obligations to employees and subcontractors." Under the Walsh-Healey Act (sec. 3) the Secretary of Labor has the sole power to determine whether a contractor has breached the labor stipulations of his contract, and has power to remove a name from this list before the 3 years have expired.

### CONCLUSION

In short, the administration and enforcement of the Walsh-Healey Act are centralized in the Public Contracts Division of the United States Department of Labor with power to summon witnesses and take testimony under oath. The administration and enforcement of the Davis-Bacon Act are scattered among all the contracting agencies of the United States Government, the Comptroller General of the United States, and the Secretary of Labor, with no one having the power to gain access to necessary records, to summon witnesses, or to take testimony under oath in cases involving violation of the provisions of the act or in predetermination of the prevailing wage rates.

## CREATION OF LABOR RELATIONS DEPARTMENT IN SUPERIOR COURT OF LOS ANGELES

PERHAPS the first special branch of a law court in the United States to handle labor relations matters has been established in the Superior Court of Los Angeles, California.

Presiding Judge B. Rey Schauer, in issuing the order creating a labor relations department (Dept. 28) in the superior court, stated that there would be assigned to this department "the duties of hearing and acting on all original applications for preliminary restraining orders and injunctions and the returns thereon in labor-industry and intralabor controversies." In justification of a special agency to consider these matters, it appears that heretofore such litigation has been under a department which was burdened with other types of work or the litigation was distributed rather indiscriminately among many departments of the court.

[44] Davis-Bacon Act, sec. 2; Walsh-Healey Act, sec. 2.

In releasing the order creating the department, an explanatory statement pointed out that:

> The creation of this special department of the court to be known as the "Labor Relations Department" is a realistic recognition of the increasing importance to the National interest of uninterrupted industrial production and of the facts that the personal interests of employees and employers and of competing labor organizations are in some instances and in some elements conflicting, in other instances and elements allied or identical.
>
> The efforts of this department will be directed primarily towards avoidance and amelioration of destructive results from the conflicting elements and towards promotion of cooperation in the National interest.
>
> It is contemplated that the fullness of the effort to promote understanding and fairness in adjusting conflicting relations will be coupled with an equal measure of firmness in the treatment of any unlawful activities, if occasion should arise.
>
> It is hoped that through fairness of approach, thoroughness of investigation and firmness and uniformity of action, the destructive results both to persons and the public interest, which characterize less enlightened treatment, may be substantially avoided.

## COURT DECISIONS OF INTEREST TO LABOR

### *Coercion by Unions Under Wisconsin Labor Relations Act*

IN 1937 Wisconsin enacted a State labor relations act which closely resembled the National Labor Relations Act in safeguarding employees' right to organize and to bargain collectively. In 1939 this act was repealed and an Employment Peace Act enacted which, among other major changes, specified that employees not only had the right to join unions and to bargain collectively but also had the right "to refrain from any or all of such activities." It further stated that "to coerce, intimidate, or induce an employer to interfere" with an employee's right to refrain from such activities was an unfair labor practice.

In the first decision[1] to be based on these clauses of the Employment Peace Act the Wisconsin Employment Relations Board found the union guilty of unfair labor practices, and ordered it to cease and desist from attempting to coerce or intimidate employees or the employer. Also, the union was ordered to post notices in the union offices and on the company bulletin boards stating that "no employee is required by law or by any collective bargaining agreement to become or remain a member of such union or any other union in order to retain employment * * *, that union will wholly refrain from interfering or attempting to interfere with such rights of employees * * *."

The union involved had a majority representation and was the exclusive bargaining agent for all employees of the company, although it had never been able to obtain a closed-shop contract. The Board's finding of unlawful coercion was based on evidence that the union had

[1] *Imp and Bohachef* v. *Christoffel and Allis-Chalmers Workers' Union.*

threatened an employee with loss of job and even bodily harm if he did not pay his back dues and rejoin the union, and that the union had demanded the discharge of this former union member and another employee who belonged to a rival union.

The acts which the Board condemned took place prior to a long and bitter strike [2] in which the question of union status was the major issue. According to the terms of settlement of this strike, an impartial referee is to arbitrate all cases of discipline which the union considers affects its security.

## *New Jersey Courts Hold Peaceful Picketing Lawful*

The New Jersey Court of Errors and Appeals has abrogated a long-standing rule of "no strike, no picketing" by holding, in two cases, that peaceful picketing was improperly enjoined. This ruling was based on a number of decisions of the United States Supreme Court, holding that the right to picket is protected by the free speech guaranties of the Federal Constitution.

In both of these cases,[3] the lower court had issued a preliminary injunction based on affidavits of both parties. The employers had alleged that they were threatened with violence in connection with picketing, but these charges were denied by officers and members of the union. The State court held that under the circumstances a preliminary injunction should not have been granted, as "the court was powerless, on preliminary argument, to determine the fact issue."

Relying on the decisions of the United States Supreme Court, the defendant unions contended that their activities, unaccompanied by violence, were an exercise of their right of freedom of speech and of the press guaranteed by the Constitution. The lower court held that these cases were not controlling since both were concerned with "penal legislation"—in one case an Alabama statute and in the other an ordinance of Shasta County, Calif. The appellate court, however, ruled that if the rights of peaceful picketing may not be curtailed by State or local law, "they are immune from the ban of injunction."

In connection with the fundamental questions involved in these cases, the New Jersey court also referred to recent decisions of the United States Supreme Court in *Milk Wagon Drivers Union* v. *Meadowmoor Dairies*, and *A. F. of L.* v. *Swing*.[4] In the first case, it was pointed out, the Supreme Court held that the State courts may "enjoin acts of picketing in themselves peaceful when they are enmeshed with contemporaneously violent conduct which is concededly outlawed." On the other hand, in the Swing case, the Supreme Court reversed a preliminary injunction which banned picketing of an establishment

[1] See June 1941 issue of the Monthly Labor Review (p. 1464).

[2] *Heine's, Inc.*, v. *Truck Drivers' and Helpers' Union* (19 Atl. (2d) 204); *Lora Lee Dress Co.* v. *International Ladies' Garment Workers Union* (19 Atl. (2d) 659).

[4] See Monthly Labor Review for June 1941 (p. 1450).

where, as in these cases, there was no dispute between the management and its immediate employees.

At the time the injunctions in these two cases were issued, New Jersey did not, by statute, limit the issuance of injunctions in labor disputes. However, in March 1941, an anti-injunction act similar to the Federal Norris-La Guardia Act was passed. As a result of the passage of this legislation, peaceful picketing in order to bring about a closed shop has been held to be lawful.[5] Previously, the New Jersey courts had generally held strikes and picketing for such purposes illegal. This case, decided by the New Jersey Chancery Court, involved peaceful picketing of retail customers of a dairy by a drivers' union. The court ruled that under the New Jersey law a "labor dispute" existed, even though the company had an agreement with an independent union whose employees were not out on strike. For this reason, the company and its employees were not entitled to an injunction.

The decision of the court was based primarily on the definition of "labor dispute" in the anti-injunction statute. This term includes any controversy concerning terms or conditions of employment regardless of whether or not the disputants stand in the proximate relation of employer and employee. Hence, the picketing of the milk company's customers was lawful, the court said, even if carried on for the avowed purpose of compelling the acceptance of the union's demands and thus bringing about the closed shop. As the effect of the statute is to limit the issuance of injunctions in labor disputes, the court concluded that an injunction should not be granted.

### *Disestablishment Order Against Company Unions Upheld*

The Court of Appeals for the District of Columbia has sustained a ruling of the National Labor Relations Board ordering the disestablishment of employee organizations in 10 plants of the Bethlehem Steel Co.[6] These organizations, known as Employee Representation Plans, had been in existience for over 20 years, but the court held that the employer had, throughout this period, dominated, interfered with, and supported the Plans.

The facts of the case showed that originally the employer had established the Plans and had financially supported them, but later such financial support was limited to the payment of representatives for attending meetings. The majority opinion, delivered by Mr. Justice Edgerton, pointed out that the National Labor Relations Act makes it an unfair labor practice to contribute financial "or other" support to a labor organization. Thus, support, to be prohibited, need not take financial forms. It may include advising employees to

[5] *Newark Milk & Cream Co.* v. *Milk Drivers & Dairy Employees Local No. 680* (19 Atl. (2d) 232).
[6] *Bethlehem Steel Co.* v. *National Labor Relations Board.*

join one union and not to join other labor organizations, as well as many other forms of conduct.

The evidence showed that the company had employed labor spies to report on the growth of a new union and to interfere with the independent organization of workers. This, the court said, constituted support of a labor organization in violation of the Labor Relations Act. There was also evidence that, in the course of a strike at Johnstown, Pa., in 1937, the employer had turned over money to the mayor of that city to insure the continuance of his hostility to outside unions. The company also promised money to a so-called "Citizens' Committee" which, in the name of law and order, sought to break the strike. All of these forms of conduct were held to show that the employer had contributed to the support of the Plans; therefore, the order of the Board disestablishing the Plans was held to be valid.

In a dissenting opinion, Mr. Justice Stephens declared that there was no evidence of domination by the employer, and, further, that a new hearing should be granted by the Board because of an alleged bias on the part of the trial examiner. The court in the majority opinion declared that the examiner had not shown bias or prejudice and that the employer had been granted a fair hearing.

### *Payment of Compensation Accruing After Employee's Death*

An interesting case concerning workmen's compensation was recently decided by the Court of Civil Appeals of Texas.[7] The case concerned an award payable in weekly installments for general injuries received by a worker. The employee died prior to the expiration of the compensation period, and the question arose as to whether the heirs of the deceased employee were entitled to the unpaid compensation award.

The court held that where an employee receives a "specific injury" such as the loss of an eye, and the award of compensation is payable in weekly installments, the right to the full amount of the award is a "vested right." Therefore, in such a case, if the employee dies prior to the expiration of the compensation period, his heirs are entitled to the installments accruing after his death. On the other hand, an employee who is awarded compensation for a "general injury," has no "vested right" in the full amount of the award, and his heirs cannot recover the unpaid installments accruing after his death. In this particular case of general injury, however, the heirs were permitted to recover because the insurer had failed to make the weekly payments required by the award of the industrial accident board prior to the employee's death. By failure of the insurer to make the payments, the statute gave the employee a "vested right" in the entire amount of the award.

[7] *Southern Underwriters* v. *Lewis* (150 S. W. (2d) 162).

# *Cost of Living*

## CHANGES IN COST OF LIVING, APRIL 15 TO MAY 15, 1941

THE cost of living in large cities rose by 0.7 percent between mid-April and mid-May, largely because of increases in food costs, in rents, in prices of men's work clothing and of gasoline. This advance brings living costs of moderate-income city families to a point 2.4 percent above the level of last June and 4.4 percent above August 1939.

The cost of food to city workers again rose by 1.5 percent between mid-April and mid-May. Prices of fresh fruits and vegetables increased, as is usual at this time of year. Higher prices for pork products, eggs, evaporated milk, and cheese resulted from the continued rise in consumer incomes and large Government purchases made at prices intended to encourage increased production. Advances in wholesale prices of butter were reflected in the retail prices. The general reduction in shipping facilities contributed to increases in the cost of sugar, coffee, and tea.

At the end of May preliminary reports on prices of 18 staple foods indicated that lard, egg, butter, coffee, and navy bean prices had registered further increases.

As compared with prices in mid-May of last year, fresh fruits and vegetables averaged about 2 percent lower, with oranges 9 percent and potatoes 24 percent lower than in May 1940. Prices for eggs and butter were, however, about 20 percent higher, and meats, coffee and tea, fats and oils, and sugar were from 2 to 10 percent higher. Canned fruits and vegetables were 1.5 to 2 percent higher this May than in May a year ago. On the average, the cost of food to wage earners and clerical workers in large cities was 5.3 percent above the level of mid-May last year; and 9.2 percent above August 1939, when food costs were at a comparatively low level for recent years.

Rents charged moderate-income families rose again on May first. The increases resulted in a rise in average rents of four-tenths of 1 percent in the 20 large cities surveyed monthly. The most pronounced increases occurred in Chicago and Seattle.

There were scattered increases in clothing prices. Because of large Government purchases for the Army, and generally higher wholesale prices for cotton fabrics, retail prices for men's overalls and work

shirts increased generally. Increases in prices for men's overalls averaged about 1 percent for the month, carrying the level about 10 percent above that of August 1939. Increases in prices for work shirts averaged about 3 percent between April 15 and May 15, but the rise since August 1939 has not been so marked as in the case of overalls. The most pronounced advances in prices of men's suits and men's work clothing occurred in Baltimore and Seattle, where there were continued large increases in employment. In Seattle, in addition there were general price increases because of an advance in the sales tax from 2 to 3 percent on May 1.

Advances in furniture costs were reported in 18 of the 20 cities from which the Bureau of Labor Statistics obtains monthly data. Increases in refrigerator prices in 7 cities brought the average large-city price back to that prevailing last September, when price cuts were announced by a number of manufacturers. Rug prices, which are to a large extent dependent on availability of imported carpet wools, rose further in a number of cities, bringing the average for May 15 more than 5 percent above June 1940 and almost 20 percent above August 1939.

Increases in prices of gasoline were reported from 15 of the 20 cities covered by the Bureau's monthly survey. In these cities the advances averaged 0.8 cent per gallon.

TABLE 1.—*Percent of Change From April 15, 1941, to May 15, 1941, in the Cost of Goods Purchased by Wage Earners and Lower-Salaried Workers*

| City | All Items | Food | Clothing | Rent | Fuel, electricity, and ice | Housefurnishings | Miscellaneous |
|---|---|---|---|---|---|---|---|
| Average, large cities | +0.7 | [1] +1.5 | +0.4 | +0.4 | [2] +0.1 | +0.7 | +0.3 |
| New England: Boston | +.5 | +1.2 | +.2 | [3] | +.5 | +.6 | +.4 |
| Middle Atlantic: | | | | | | | |
| Buffalo | +1.3 | +2.7 | +.3 | +.6 | [3] | +.3 | +1.3 |
| New York | +.4 | +.7 | +.7 | [3] | +.1 | +.7 | +.1 |
| Philadelphia | +1.3 | +3.2 | +.4 | +.1 | −.2 | +.1 | +.3 |
| Pittsburgh | +1.0 | +2.5 | −.1 | +.5 | [3] | +.1 | +.4 |
| East North Central: | | | | | | | |
| Chicago | +.9 | +1.4 | +.4 | +1.4 | [3] | +1.1 | +.2 |
| Cincinnati | +.3 | +.8 | −.2 | +.1 | −1.0 | +1.0 | +.2 |
| Cleveland | +.8 | +1.3 | +.1 | +.6 | +.2 | +2.1 | +.2 |
| Detroit | [3] | −.6 | +.1 | +.3 | +1.5 | +.4 | [3] |
| West North Central: | | | | | | | |
| Kansas City | +.1 | +.5 | +.1 | +.1 | [3] | +.1 | −.1 |
| Minneapolis | +1.1 | +1.6 | +.1 | [3] | −.7 | +1.1 | +2.1 |
| St. Louis | +.2 | +1.0 | +.5 | +.1 | −.1 | +1.1 | −.8 |
| South Atlantic: | | | | | | | |
| Baltimore | +1.2 | +2.2 | +1.7 | +.5 | −.3 | +.3 | +.5 |
| Savannah | +.8 | +1.7 | +.3 | +.3 | [3] | [3] | +.3 |
| East South Central: Birmingham | +.4 | +.7 | +.3 | +.3 | +.2 | +.2 | +.4 |
| West South Central: Houston | +.3 | +.8 | +.1 | +.1 | [3] | +.7 | [3] |
| Mountain: Denver | +.4 | +.9 | +.3 | [3] | [3] | +.5 | +.4 |
| Pacific: | | | | | | | |
| Los Angeles | +1.2 | +2.7 | +.1 | [3] | [3] | [3] | +.9 |
| San Francisco | +.7 | +1.4 | +.1 | [3] | [3] | +.5 | +.5 |
| Seattle | +1.8 | +3.2 | +2.3 | +1.3 | +.8 | +1.1 | +.8 |

[1] Based on data for 51 cities.
[2] Based on data for 34 cities.
[3] No change.

Estimated percent changes from April 15 to May 15, 1941, in the cost of goods purchased by wage earners and lower-salaried workers in 20 large cities of the United States, and for the large cities combined are presented by groups of items in table 1. Table 2 presents estimated indexes of these costs, as of May 15, 1941, based on average costs in the years 1935–39 as 100.

TABLE 2.—*Indexes of Cost of Goods Purchased by Wage Earners and Lower-Salaried Workers, by Groups of Items, May 15, 1941*

[Average 1935–39=100]

| City | All items | Food | Clothing | Rent | Fuel, electricity, and ice | House-furnishings | Miscellaneous |
|---|---|---|---|---|---|---|---|
| Average, large cities | 102.9 | [1] 102.1 | 102.7 | 105.8 | [2] 101.0 | 102.9 | 102.5 |
| New England: Boston | 101.1 | 99.5 | 102.1 | 100.7 | 107.1 | 99.6 | 101.8 |
| Middle Atlantic: | | | | | | | |
| Buffalo | 105.5 | 106.0 | 102.5 | 110.0 | 99.7 | 103.7 | 105.1 |
| New York | 102.7 | 102.3 | 102.8 | 102.7 | 103.6 | 97.4 | 103.6 |
| Philadelphia | 101.7 | 100.1 | 102.2 | 104.5 | 99.5 | 103.3 | 102.3 |
| Pittsburgh | 103.2 | 103.6 | 102.2 | 106.3 | 104.0 | 104.3 | 100.5 |
| East North Central: | | | | | | | |
| Chicago | 103.4 | 101.9 | 100.9 | 110.8 | 100.3 | 105.1 | 101.3 |
| Cincinnati | 101.9 | 100.9 | 104.4 | 102.8 | 98.4 | 104.7 | 101.8 |
| Cleveland | 104.3 | 103.4 | 102.3 | 110.0 | 109.1 | 106.5 | 101.1 |
| Detroit | 103.4 | 100.7 | 102.7 | 110.0 | 99.8 | 103.5 | 103.1 |
| West North Central: | | | | | | | |
| Kansas City | 100.2 | 97.9 | 102.9 | 103.3 | 100.8 | 100.3 | 100.0 |
| Minneapolis | 103.7 | 103.1 | 102.2 | 108.3 | 95.7 | 104.9 | 104.5 |
| St. Louis | 102.1 | 102.4 | 103.6 | 101.6 | 102.7 | 99.6 | 101.8 |
| South Atlantic: | | | | | | | |
| Baltimore | 103.8 | 103.7 | 103.5 | 107.6 | 100.4 | 104.5 | 102.0 |
| Savannah | 103.3 | 104.7 | 102.5 | 106.1 | 96.9 | 103.7 | 101.8 |
| East South Central: Birmingham | 102.8 | 97.7 | 103.7 | 118.9 | 94.1 | 101.0 | 102.1 |
| West South Central: Houston | 103.5 | 105.0 | 103.5 | 107.2 | 93.1 | 107.4 | 101.3 |
| Mountain: Denver | 101.5 | 99.5 | 100.3 | 107.0 | 97.4 | 104.2 | 101.9 |
| Pacific: | | | | | | | |
| Los Angeles | 104.4 | 105.5 | 103.7 | 106.4 | 94.3 | 103.4 | 103.9 |
| San Francisco | 104.2 | 104.9 | 103.4 | 104.1 | 91.5 | 103.8 | 105.3 |
| Seattle | 105.9 | 108.0 | 106.2 | 110.4 | 95.7 | 100.1 | 104.2 |

[1] Based on data for 51 cities.
[2] Based on data for 34 cities.

# *Industrial Disputes*

## RECENT STRIKES

ACCORDING to preliminary estimates there were 500 new strikes in May 1941 in which 315,000 workers were involved. There were 2¼ million man-days of idleness during all strikes in progress in the month. These figures represent an increase of 25 percent in the number of strikes but decreases of 37 percent in number of workers involved and 71 percent in man-days of idleness, as compared with April, when the general bituminous-coal stoppage was in progress. The number of strikes in May was greater than in any month since June 1937.

Excluding the general bituminous-coal stoppage, the amount of idleness during strikes in May was 20 percent less than in April, although the number of workers involved in May strikes was about 72 percent greater than in April. The largest strikes beginning in May, in terms of the number of workers involved, were the 1-day stoppage of anthracite miners in Pennsylvania, a brief stoppage of workers at several General Motors Corporation plants in Michigan, the strike of several thousand building-trades workers in and around Detroit, Mich., and the strike of shipyard workers (machinists) at San Francisco.

The estimates for May are shown in the table below along with figures for other periods for comparison.

*Strikes in April and May 1941 Compared with Averages of Preceding 5-Year Period*

| Item | May 1941 [1] | April 1941 [1] | May 1940 | Averages for 5-year period, 1935-39 | |
|---|---|---|---|---|---|
| | | | | May | April |
| Number of strikes beginning in month | 500 | 400 | 239 | 308 | 292 |
| Number of workers involved in new strikes | 315,000 | 500,000 | 53,231 | 135,816 | 165,928 |
| Number of man-days idle during all strikes in progress during month | 2,250,000 | 7,800,000 | 665,688 | 2,084,334 | 2,199,274 |

[1] Preliminary estimates.

## STRIKES IN MARCH 1941 [1]

THE Bureau has obtained detailed information on 316 strikes which began in March 1941, involving approximately 115,000 workers. There were more than a million and a half man-days of idleness in March as a result of these and 142 strikes which continued into March from preceding months.

Strike activity was considerably higher in March than in February—the number of strikes was 26 percent greater, the number of workers involved 66 percent, and the number of man-days idle 37 percent greater. As compared with March a year ago, the number of strikes in March 1941 was 78 percent greater, more than five times as many workers were involved, and the amount of idleness was nearly four times as great. However, strike activity in March was only about 10 percent above the average for March during the 5-year period preceding the defense program (1935–39).

The largest strike in progress during the month was at plants of the International Harvester Co. in Illinois and Indiana. This strike began in January and continued to the end of March.[2] The two largest strikes beginning in March involved several thousand workers each at the Bethlehem and Johnstown, Pa., plants of the Bethlehem Steel Co. Workers at the Bethlehem plant were idle from March 24 to 27 and at the Johnstown plant from March 28 to 30. In both cases the union involved—The Steel Workers' Organizing Committee, C. I. O.—protested against elections being held in the plants by local plant organizations which the union claimed were company dominated, and in each case the striking employees returned to work when the company agreed to recognize the S. W. O. C. as the collective bargaining agency for its members, with the understanding that the determination of the exclusive bargaining agency should await a court decision on the company's appeal against an order of the National Labor Relations Board directing it to disestablish the local plant organizations (the Employees' Representation Plan.)

A little more than one-half of 1 percent (0.65) of the total employed workers were involved in strikes during the month of March 1941, and the amount of idleness due to strikes was approximately one-fourth of 1 percent (0.27) of the available working time. In other words, about 6½ workers in each 1,000 employed were involved in strikes at some time during the month; and out of every 1,000 man-days of available work, less than 3 were not worked because of strikes.

[1] The Bureau's statistics on strikes exclude minor disputes lasting less than 1 day or involving fewer than 6 workers.

[2] See Monthly Labor Review for June 1941 (p. 1463.)

TABLE 1.—*Trend of Strikes, 1935 to March 1941*

| Year and month | Number of strikes | | | Workers involved in strikes | | | Man-days idle during month or year |
|---|---|---|---|---|---|---|---|
| | Beginning in month or year | In progress during month | Ending in month | Beginning in month or year | In progress during month | Ending in month | |
| 1935 | 2,014 | | | 1,117,213 | | | 15,456,337 |
| 1936 | 2,172 | | | 788,648 | | | 13,901,956 |
| 1937 | 4,740 | | | 1,860,621 | | | 28,424,857 |
| 1938 | 2,772 | | | 688,376 | | | 9,148,273 |
| 1939 | 2,613 | | | 1,170,962 | | | 17,812,219 |
| 1940 | 2,508 | | | 576,988 | | | 6,700,872 |
| *1940* | | | | | | | |
| January | 128 | 222 | 124 | 26,937 | 41,284 | 32,743 | 246,674 |
| February | 172 | 270 | 153 | 29,509 | 38,050 | 17,252 | 289,992 |
| March | 178 | 295 | 187 | 22,433 | 43,231 | 29,593 | 386,981 |
| April | 228 | 336 | 214 | 39,481 | 53,119 | 29,226 | 441,866 |
| May | 239 | 361 | 239 | 53,231 | 77,124 | 59,263 | 665,688 |
| June | 214 | 336 | 190 | 38,542 | 56,403 | 36,559 | 484,007 |
| July | 244 | 390 | 227 | 63,126 | 82,970 | 54,100 | 585,651 |
| August | 231 | 394 | 253 | 61,356 | 90,226 | 47,199 | 706,308 |
| September | 253 | 394 | 242 | 65,362 | 108,389 | 72,523 | 780,570 |
| October | 267 | 419 | 253 | 71,997 | 107,863 | 68,730 | 915,014 |
| November | 207 | 373 | 243 | 62,399 | 101,532 | 82,571 | 739,807 |
| December | 147 | 277 | 168 | 42,615 | 61,576 | 43,605 | 458,314 |
| *1941* [1] | | | | | | | |
| January | 221 | 330 | 209 | 90,976 | 108,947 | 53,326 | 665,221 |
| February | 250 | 371 | 229 | 69,440 | 125,061 | 64,924 | 1,130,264 |
| March | 316 | 458 | 292 | 115,076 | 175,213 | 122,312 | 1,543,803 |

[1] Succeeding reports may show slightly different figures for the various months due to corrections and additions made as later information is received.

TABLE 2.—*Workers Involved and Man-days Idle During Strikes in March 1941, Compared With Total Workers and Available Work*

| Industry or group | March 1941 | |
|---|---|---|
| | Percent of employed workers [1] involved in strikes during month | Man-days idle during strikes as percentage of total man-days of work available [2] |
| All industries | 0.65 | 0.27 |
| All manufacturing groups | 1.51 | .61 |
| Iron, steel and their products, excluding machinery | 3.81 | .65 |
| Machinery, excluding transportation equipment | 3.01 | 1.69 |
| Transportation equipment | 1.62 | .55 |
| Nonferrous metals and their products | 1.17 | .46 |
| Lumber and allied products | .82 | .43 |
| Stone, clay, and glass products | .62 | .50 |
| Textiles and their products | 1.09 | .34 |
| Fabrics | 1.27 | .38 |
| Wearing apparel | .90 | .31 |
| Leather and its manufactures | .30 | .11 |
| Food and kindred products | .57 | .27 |
| Tobacco manufactures | 0 | 0 |
| Paper and printing | .33 | .11 |
| Chemicals and allied products | .48 | .36 |
| Rubber products | 1.96 | .59 |
| Building and construction | .55 | .09 |
| Mining: | | |
| Anthracite | .55 | .06 |
| Bituminous coal | .48 | .07 |
| Metalliferous | .07 | .09 |
| Quarrying and nonmetallic | 0 | 0 |

[1] "Employed workers" as used here includes all workers except those in occupations and professions where strikes rarely, if ever, occur. In general, the term "employed workers" includes all employees except the following groups: Government workers, agricultural wage earners on farms employing less than 6, managerial and supervisory employees, and certain groups which because of the nature of their work cannot or do not strike, such as teachers, clergymen, and domestic servants. Self-employed and unemployed persons are, of course, excluded.

[2] "Total man-days of work available" was estimated for purposes of this table by multiplying the total employed workers in each industry or group by the number of days worked by most employees in the respective groups.

More than 3 percent of the total employed workers in the iron and steel and machinery-manufacturing industries were involved in strikes during the month, due principally to the Bethlehem Steel strikes, which occurred in March, and the Allis-Chalmers and International Harvester strikes, which continued into March from January. The highest ratio of idleness because of strikes to time worked was in the machinery-manufacturing industries (more than 1.5 percent). This was due principally to the two last-named strikes. In table 2, figures showing comparisons of workers involved and of man-days idle in strikes, with total workers employed and available working time are given for all industries and for several selected groups of industries.

The greatest amount of idleness during strikes in March 1941 was in the machinery-manufacturing industries (574,000 man-days). About three-fourths of this was due to the Allis Chalmers and International Harvester strikes which had been in progress since January. There were 155,000 man-days idle in the iron and steel industries, 130,000 in textiles, 125,000 in agriculture (due principally to the strike of lemon pickers in Ventura County, Calif., which began in January), and 105,000 in the transportation-equipment manufacturing industries. The largest numbers of workers involved in strikes beginning in March were in iron and steel (37,000), textiles (16,000), transportation-equipment manufacturing (14,000), building and construction (8,000), and machinery manufacturing (7,000). Strikes were most numerous in the textile industries where there were 47 new strikes during March, followed in order by iron and steel (39), machinery (29), the lumber industries (24), building and construction (24), and trade (22).

TABLE 3.—*Strikes in March 1941, by Industry, with Comparative Man-Day Figures for the Preceding 2 Years*

| Industry | March 1941 | | | Number of man-days idle during the 12-month period ending with— | |
|---|---|---|---|---|---|
| | Strikes beginning in month | | Number of man-days idle during month | March 1941 | March 1940 |
| | Number | Workers involved | | | |
| **All industries** | **316** | **115,076** | **1,543,803** | **9,100,977** | **17,051,121** |
| **Iron and steel and their products, excluding machinery** | **39** | **36,972** | **155,201** | **585,401** | **247,503** |
| Blast furnaces, steel works, and rolling mills | 11 | 27,271 | 83,816 | 246,203 | 85,888 |
| Bolts, nuts, washers, and rivets | 2 | 370 | 2,995 | 4,049 | |
| Cast-iron pipe and fittings | 1 | 866 | 17,570 | 51,427 | 32,978 |
| Cutlery (not including silver and plated cutlery) and edge tools | | | | 864 | 152 |
| Forgings, iron and steel | 3 | 1,140 | 1,705 | 5,795 | 6,062 |
| Hardware | 1 | 65 | 821 | 4,988 | 26,313 |
| Plumbers' supplies and fixtures | 4 | 754 | 4,042 | 36,231 | 3,119 |
| Steam and hot-water heating apparatus and steam fittings | 4 | 1,261 | 5,279 | 29,060 | 2,393 |
| Stoves | | | 6,240 | 38,786 | 22,477 |
| Structural and ornamental metalwork | 6 | 1,571 | 4,585 | 17,642 | 6,575 |
| Tin cans and other tinware | | | | 17,030 | 15,874 |
| Tools (not including edge tools, machine tools, files, and saws) | 1 | 91 | 728 | 3,615 | 2,222 |
| Wire and wire products | 3 | 1,119 | 16,850 | 29,471 | 13,772 |
| Other | 3 | 2,464 | 10,570 | 100,240 | 29,678 |

TABLE 3.—*Strikes in March 1941, by Industry with Comparative Man-Day Figures for the Preceding 2 Years*—Continued

| Industry | March 1941 | | | Number of man-days idle during the 12-month period ending with— | |
|---|---|---|---|---|---|
| | Strikes beginning in month | | Number of man-days idle during month | | |
| | Number | Workers involved | | March 1941 | March 1940 |
| **Machinery, excluding transportation equipment** | **29** | **7,241** | **574,438** | **1,996,403** | **419,623** |
| Agricultural implements | 2 | 135 | 268,062 | 471,699 | 13,289 |
| Cash registers, adding machines, and typewriters | | | 2,740 | 59,512 | 153 |
| Electrical machinery, apparatus, and supplies | 3 | 2,574 | 81,491 | 578,357 | 80,191 |
| Engines, turbines, tractors, and water wheels | | | | 9,549 | 125,070 |
| Foundry and machine-shop products | 16 | 2,422 | 192,842 | 690,675 | 114,659 |
| Machine tools (power driven) | 1 | 17 | 15,545 | 43,451 | 7,822 |
| Radios and phonographs | 6 | 1,830 | 11,128 | 39,032 | 393 |
| Other | 1 | 263 | 2,630 | 104,128 | 78,046 |
| **Transportation equipment** | **14** | **14,459** | **105,270** | **470,562** | **2,652,479** |
| Aircraft | 2 | 1,325 | 3,875 | 49,458 | 67,588 |
| Automobiles, bodies, and parts | 6 | 6,870 | 60,547 | 221,211 | 2,518,831 |
| Cars, electric- and steam-railroad (including repair shops) | 2 | 2,614 | 26,629 | 113,469 | 43,412 |
| Shipbuilding | 3 | 2,985 | 10,894 | 83,099 | 14,760 |
| Other | 1 | 665 | 3,325 | 3,325 | 7,888 |
| **Nonferrous metals and their products** | **11** | **3,637** | **32,664** | **296,803** | **168,284** |
| Aluminum manufactures | 3 | 2,659 | 22,997 | 53,863 | 95 |
| Brass, bronze, and copper products | | | | 7,248 | 33,832 |
| Clocks, watches, and other time-recording devices | | | 120 | 312 | 10,726 |
| Jewelry | | | | 9,720 | 3,310 |
| Lighting equipment | 2 | 581 | 6,045 | 12,359 | 6,751 |
| Silverware and plated ware | 1 | 45 | 135 | 47,875 | 1,925 |
| Smelting and refining—copper, lead, and zinc | | | | 49,664 | 97,514 |
| Stamped and enameled ware | 1 | 39 | 639 | 49,278 | 7,457 |
| Other | 4 | 313 | 2,728 | 66,484 | 6,674 |
| **Lumber and allied products** | **24** | **3,250** | **59,789** | **880,920** | **731,964** |
| Furniture | 10 | 1,318 | 24,589 | 258,741 | 173,833 |
| Millwork and planing | 6 | 870 | 5,790 | 72,118 | 128,317 |
| Sawmills and logging camps | 5 | 647 | 25,244 | 424,381 | 319,630 |
| Other | 3 | 415 | 4,166 | 125,680 | 110,184 |
| **Stone, clay, and glass products** | **8** | **1,106** | **33,028** | **256,715** | **162,112** |
| Brick, tile, and terra cotta | 1 | 351 | 23,107 | 103,317 | 40,718 |
| Cement | | | | 31,242 | 576 |
| Glass | 1 | 35 | 315 | 43,785 | 46,390 |
| Marble, granite, slate, and other products | | | | 546 | 27,322 |
| Pottery | 1 | 195 | 2,730 | 29,808 | 3,176 |
| Other | 5 | 525 | 6,876 | 48,017 | 43,930 |
| **Textiles and their products** | **47** | **16,246** | **129,956** | **843,298** | **1,036,108** |
| Fabrics | 19 | 12,627 | 91,166 | 417,281 | 529,975 |
| Carpets and rugs | | | | 3,826 | 1,811 |
| Cotton goods | 7 | 9,556 | 60,211 | 204,625 | 333,588 |
| Cotton small wares | | | | 753 | 3,376 |
| Dyeing and finishing textiles | | | 4,550 | 37,887 | 17,938 |
| Silk and rayon goods | 4 | 2,565 | 15,580 | 75,218 | 68,829 |
| Woolen and worsted goods | 2 | 193 | 280 | 31,395 | 43,164 |
| Other | 6 | 313 | 10,545 | 63,577 | 61,269 |
| Wearing apparel | 28 | 3,619 | 38,790 | 426,017 | 506,133 |
| Clothing, men's | 2 | 258 | 2,378 | 30,478 | 38,944 |
| Clothing, women's | 19 | 1,035 | 8,769 | 160,575 | 274,345 |
| Corsets and allied garments | | | | 6,111 | 2,944 |
| Men's furnishings | | | 10,465 | 18,736 | 24,987 |
| Hats, caps, and millinery | 2 | 78 | 1,326 | 33,358 | 30,221 |
| Shirts and collars | 1 | 378 | 3,780 | 19,245 | 17,942 |
| Hosiery | 1 | 1,281 | 7,686 | 85,021 | 57,733 |
| Knit goods | 1 | 30 | 3,452 | 50,821 | 41,961 |
| Other | 2 | 559 | 934 | 21,672 | 17,056 |
| **Leather and its manufactures** | **3** | **955** | **7,210** | **91,120** | **216,813** |
| Boots and shoes | 1 | 455 | 4,550 | 47,676 | 109,433 |
| Leather | | | | 20,942 | 19,918 |
| Other leather goods | 2 | 500 | 2,660 | 22,502 | 87,462 |
| **Food and kindred products** | **17** | **3,222** | **44,978** | **243,341** | **345,097** |
| Baking | 1 | 55 | 894 | 26,794 | 32,688 |
| Beverages | 1 | 43 | 175 | 6,601 | 16,129 |
| Butter | | | | 930 | 31 |
| Canning and preserving | 3 | 223 | 1,660 | 45,047 | 98,674 |
| Confectionery | 2 | 49 | 3,492 | 30,904 | 13,151 |
| Flour and grain mills | | | 480 | 8,034 | 5,915 |
| Ice cream | | | | | 340 |
| Slaughtering and meat packing | 6 | 1,989 | 11,757 | 49,346 | 83,806 |
| Sugar refining, cane | 1 | 473 | 18,425 | 35,104 | 85,788 |
| Other | 3 | 390 | 8,095 | 40,581 | 8,575 |

TABLE 3.—*Strikes in March 1941, by Industry, with Comparative Man-Day Figures for the Preceding 2 Years*—Continued

| Industry | March 1941 | | | Number of man-days idle during the 12-month period ending with— | |
|---|---|---|---|---|---|
| | Strikes beginning in month | | Number of man-days idle during month | | |
| | Number | Workers involved | | March 1941 | March 1940 |
| **Tobacco manufactures** | | | | **76,909** | 75,454 |
| Chewing and smoking tobacco and snuff | | | | 18 | |
| Cigars | | | | 76,891 | 46,950 |
| Cigarettes | | | | | 28,504 |
| **Paper and printing** | **16** | **1,680** | **14,630** | **112,819** | 128,069 |
| Boxes, paper | 1 | 150 | 3,171 | 40,748 | 76,919 |
| Paper and pulp | 3 | 489 | 1,489 | 16,392 | 15,636 |
| Printing and publishing: | | | | | |
| Book and job | 5 | 272 | 1,648 | 9,201 | 3,781 |
| Newspapers and periodicals | 2 | 454 | 2,545 | 15,905 | 6,255 |
| Other | 5 | 315 | 5,777 | 30,573 | 25,478 |
| **Chemicals and allied products** | **5** | **1,334** | **27,037** | **211,286** | 356,899 |
| Chemicals | 1 | 953 | 11,436 | 22,048 | 18,919 |
| Cottonseed—oil, cake, and meal | | | | 1,661 | 13,668 |
| Druggists' preparations | | | | 542 | 904 |
| Explosives | 1 | 45 | 45 | 2,277 | 801 |
| Fertilizers | 1 | 49 | 441 | 842 | 390 |
| Paints and varnishes | | | 1,815 | 14,029 | 4,325 |
| Petroleum refining | | | | 9,747 | 50,004 |
| Rayon and allied products | | | | 85,000 | 228,488 |
| Soap | | | | 500 | 12,539 |
| Other | 2 | 287 | 13,300 | 74,640 | 26,861 |
| **Rubber products** | **3** | **1,943** | **17,114** | **135,280** | 54,895 |
| Rubber boots and shoes | 1 | 1,900 | 1,900 | 6,340 | |
| Rubber tires and inner tubes | | | 12,918 | 106,657 | 8,902 |
| Other rubber goods | 2 | 43 | 2,296 | 22,283 | 45,993 |
| **Miscellaneous manufacturing** | **11** | **2,397** | **17,321** | **238,744** | 143,740 |
| Electric light, power, and manufactured gas | 1 | 24 | 240 | 2,508 | 11,358 |
| Broom and brush | | | | 10,283 | 566 |
| Furriers and fur factories | | | | 16,046 | 28,533 |
| Other | 10 | 2,373 | 17,081 | 209,907 | 103,283 |
| **Extraction of minerals** | **7** | **2,469** | **7,758** | **263,518** | 7,413,585 |
| Coal mining, anthracite | 1 | 395 | 790 | 90,513 | 83,992 |
| Coal mining, bituminous | 5 | 2,022 | 5,246 | 159,964 | 7,272,935 |
| Metalliferous mining | | | 1,534 | 7,471 | 47,282 |
| Quarrying and nonmetallic mining | | | | 3,220 | 5,706 |
| Other | 1 | 52 | 188 | 2,350 | 3,670 |
| **Transportation and communication** | **13** | **3,786** | **43,972** | **548,319** | 774,103 |
| Water transportation | 3 | 239 | 1,403 | 102,563 | 553,240 |
| Motortruck transportation | 7 | 360 | 4,544 | 156,992 | 135,723 |
| Motorbus transportation | 1 | 3,112 | 34,232 | 45,569 | 10,937 |
| Taxicabs and miscellaneous | | | 3,244 | 223,390 | 51,117 |
| Electric railroad | 1 | 30 | 210 | 11,051 | 6 |
| Steam railroad | | | 204 | 908 | |
| Telephone and telegraph | | | | 7,196 | 19,848 |
| Air transportation | | | | | 2,098 |
| Radio broadcasting and transmitting | | | | 515 | 1,104 |
| Other | 1 | 45 | 135 | 135 | 30 |
| **Trade** | **22** | **4,786** | **101,211** | **792,122** | 387,306 |
| Wholesale | 5 | 793 | 11,171 | 125,229 | 89,156 |
| Retail | 17 | 3,993 | 90,040 | 666,893 | 298,150 |
| **Domestic and personal service** | **9** | **556** | **13,384** | **98,132** | 248,027 |
| Hotels, restaurants, and boarding houses | 5 | 481 | 7,225 | 57,377 | 55,031 |
| Personal service, barbers, beauty parlors | | | | 3,562 | 1,104 |
| Laundries | 1 | 20 | 4,648 | 24,397 | 103,428 |
| Dyeing, cleaning, and pressing | 2 | 49 | 118 | 5,384 | 82,382 |
| Elevator and maintenance workers (when not attached to specific industry) | 1 | 6 | 1,393 | 6,432 | 4,794 |
| Other | | | | 980 | 1,288 |
| **Professional service** | | | 310 | 16,215 | 31,836 |
| Recreation and amusement | | | 310 | 14,347 | 21,435 |
| Professional | | | | 1,459 | 3,933 |
| Semiprofessional, attendants, and helpers | | | | 409 | 6,468 |
| **Building and construction** | **24** | **7,795** | **27,506** | **516,520** | 524,830 |
| Buildings, exclusive of PWA | 21 | 7,551 | 26,004 | 438,453 | 399,812 |
| All other construction (bridges, docks, etc., and PWA buildings) | 3 | 244 | 1,502 | 78,067 | 125,018 |
| **Agriculture and fishing** | **2** | **810** | **124,905** | **357,260** | 478,626 |
| Agriculture | 1 | 750 | 123,805 | 267,614 | 194,911 |
| Fishing | 1 | 60 | 1,100 | 89,646 | 283,715 |
| **WPA and relief projects** | | | | **5,214** | 416,340 |
| **Other nonmanufacturing industries** | **12** | **432** | **6,121** | **64,076** | 37,428 |

TABLE 4.—*Strikes in March 1941, by States, with Comparative Man-Day Figures for Preceding 2 Years*

| State | Strikes beginning in March 1941 | | Number of man-days idle during March | Number of man-days idle during 12-month period ending with— | |
|---|---|---|---|---|---|
| | Number | Workers involved | | March 1941 | March 1940 |
| All States | [1] 316 | 115,076 | 1,543,803 | 9,100,977 | 17,051,121 |
| Alabama | 4 | 647 | 3,918 | 75,765 | 462,500 |
| Arizona | 1 | 40 | 80 | 13,049 | 8,269 |
| Arkansas | 4 | 440 | 1,787 | 80,216 | 29,734 |
| California | 24 | 7,656 | 214,147 | 794,979 | 888,855 |
| Colorado | 1 | 85 | 834 | 4,750 | 59,296 |
| Connecticut | 3 | 1,959 | 14,354 | 149,830 | 78,817 |
| Delaware | 1 | 800 | 11,122 | 51,749 | 3,768 |
| District of Columbia | 4 | 255 | 1,862 | 20,374 | 36,956 |
| Florida | 4 | 458 | 4,963 | 57,936 | 125,124 |
| Georgia | 3 | 438 | 10,341 | 41,618 | 85,501 |
| Idaho | | | 1,794 | 7,411 | 1,546 |
| Illinois | 22 | 3,931 | 275,300 | 867,626 | 615,635 |
| Indiana | 13 | 2,849 | 49,245 | 426,062 | 350,540 |
| Iowa | 7 | 2,034 | 19,537 | 60,752 | 81,212 |
| Kansas | 2 | 155 | 290 | 9,267 | 24,906 |
| Kentucky | 5 | 1,122 | 7,917 | 84,364 | 1,215,174 |
| Louisiana | 2 | 320 | 5,846 | 53,264 | 26,729 |
| Maine | 1 | 28 | 308 | 6,901 | 9,194 |
| Maryland | 2 | 1,506 | 29,897 | 203,496 | 276,539 |
| Massachusetts | 12 | 3,721 | 20,823 | 221,321 | 352,635 |
| Michigan | 13 | 4,967 | 66,382 | 329,422 | 2,458,848 |
| Minnesota | 1 | 55 | 2,038 | 92,928 | 95,014 |
| Mississippi | 1 | 101 | 505 | 12,782 | 40,590 |
| Missouri | 5 | 478 | 5,447 | 245,420 | 232,345 |
| Montana | | | | 7,446 | 21,179 |
| Nebraska | | | | 1,616 | 7,954 |
| Nevada | 1 | 15 | 30 | 1,086 | 850 |
| New Hampshire | | | | 6,684 | 10,788 |
| New Jersey | 20 | 7,217 | 85,259 | 479,510 | 400,566 |
| New Mexico | | | 210 | 6,251 | 20,540 |
| New York | 61 | 12,527 | 174,437 | 1,512,390 | 1,075,207 |
| North Carolina | 3 | 10,035 | 37,582 | 124,191 | 109,907 |
| North Dakota | | | | 1,537 | 18,400 |
| Ohio | 19 | 2,904 | 57,583 | 483,980 | 728,145 |
| Oklahoma | 1 | [2] 2 | 1,292 | 6,084 | 53,572 |
| Oregon | 6 | 471 | 19,427 | 157,534 | 148,426 |
| Pennsylvania | 50 | 41,313 | 184,467 | 1,054,174 | 3,016,503 |
| Rhode Island | 2 | 374 | 1,566 | 46,033 | 93,103 |
| South Carolina | | | | 65,843 | 114,404 |
| South Dakota | | | | 90 | 373 |
| Tennessee | 4 | 1,282 | 21,477 | 62,693 | 235,862 |
| Texas | 4 | 2,596 | 13,582 | 97,912 | 148,479 |
| Utah | | | | 1,884 | 38,483 |
| Vermont | | | | 2,921 | 8,180 |
| Virginia | 3 | 93 | 935 | 99,053 | 353,455 |
| Washington | 5 | 602 | 24,959 | 442,190 | 375,178 |
| West Virginia | 4 | 1,586 | 6,085 | 36,129 | 2,177,346 |
| Wisconsin | 1 | 14 | 166,175 | 492,314 | 314,494 |
| Wyoming | | | | 150 | 20,000 |

[1] The sum of this column is more than 316. This is due to the fact that 2 strikes which extended across State lines have been counted in this table as separate strikes in each State affected with the proper allocation of number of workers involved and man-days idle.
[2] In part of an interstate strike.

The States with the most workers involved in new strikes during March were Pennsylvania (41,300), New York (12,500), North Carolina (10,000), California (7,700), and New Jersey (7,200). The Bethlehem Steel strikes referred to previously account principally for the large number of workers in Pennsylvania strikes. North Carolina, not usually affected by a large amount of strike activity, had a 2-day

strike of construction workers on the anti-aircraft firing range at Camp Davis near Wilmington, which accounted for a large share of the 10,000 workers involved in the State. The most idleness due to strikes, in terms of man-days, was in Illinois (275,000 man-days), California (214,000), Pennsylvania (184,000), New York (174,000), and Wisconsin (166,000). The States experiencing the most new strikes during the month were, in order, New York (61), Pennsylvania (50), California (24), Illinois (22), and New Jersey (20).

The average number of workers involved in the strikes which began during the first 3 months of 1941 was 350. In March alone the average number of workers per strike was 364. In table 5, the 787 strikes beginning in the 3-month period are classified according to industry group and number of workers involved. About 55 percent of the strikes involved fewer than 100 workers each, 38 percent involved from 100 up to 1,000, and in 7 percent of the strikes 1,000 or more workers were involved. Each of 5 strikes in the latter group involved more than 5,000 workers. These were the three strikes against the Bethlehem Steel Co., at Bethlehem and Johnstown, Pa., and at Lackawanna, N. Y., the International Harvester strike in Illinois and Indiana, and the Allis-Chalmers strike at West Allis, Wis.

TABLE 5.—*Strikes Beginning in the First 3 Months of 1941, by Industry Group and Number of Workers Involved*

| Industry group | Total | Number of strikes in which the number of workers involved was— | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 6 and under 20 | 20 and under 100 | 100 and under 250 | 250 and under 500 | 500 and under 1,000 | 1,000 and under 5,000 | 5,000 and under 10,000 | 10,000 and over |
| All industries | 787 | 136 | 296 | 153 | 83 | 67 | 47 | 1 | 4 |
| *Manufacturing* | | | | | | | | | |
| Iron, steel and their products, excluding machinery | 74 | 2 | 15 | 21 | 12 | 16 | 5 | ---- | 3 |
| Machinery, excluding transportation equipment | 70 | 4 | 25 | 15 | 12 | 8 | 4 | 1 | 1 |
| Transportation equipment | 36 | 1 | 2 | 8 | 3 | 9 | 13 | ---- | ---- |
| Nonferrous metals and their products | 21 | 3 | 7 | 6 | 1 | 1 | 3 | ---- | ---- |
| Lumber and allied products | 55 | 6 | 26 | 14 | 7 | 2 | ---- | ---- | ---- |
| Stone, clay, and glass products | 24 | 1 | 9 | 8 | 3 | 1 | 2 | ---- | ---- |
| Textiles and their products | 110 | 18 | 44 | 19 | 14 | 7 | 8 | ---- | ---- |
| Leather and its manufactures | 9 | ---- | 2 | ---- | 4 | 3 | ---- | ---- | ---- |
| Food and kindred products | 43 | 7 | 21 | 8 | 4 | 2 | 1 | ---- | ---- |
| Paper and printing | 27 | 8 | 7 | 10 | 1 | 1 | ---- | ---- | ---- |
| Chemicals and allied products | 14 | 2 | 7 | 1 | 3 | 1 | ---- | ---- | ---- |
| Rubber products | 10 | 3 | 3 | 1 | ---- | 2 | 1 | ---- | ---- |
| Miscellaneous manufacturing | 24 | 5 | 10 | 3 | 2 | 4 | ---- | ---- | ---- |
| *Nonmanufacturing* | | | | | | | | | |
| Extraction of minerals | 23 | ---- | 5 | 3 | 6 | 6 | 3 | ---- | ---- |
| Transportation and communication | 37 | 7 | 19 | 8 | 1 | 1 | 1 | ---- | ---- |
| Trade | 69 | 26 | 30 | 6 | 5 | 1 | 1 | ---- | ---- |
| Domestic and personal service | 34 | 11 | 18 | 4 | 1 | ---- | ---- | ---- | ---- |
| Professional service | 4 | 2 | 1 | 1 | ---- | ---- | ---- | ---- | ---- |
| Building and construction | 71 | 20 | 31 | 14 | 4 | 1 | 1 | ---- | ---- |
| Agriculture and fishing | 7 | ---- | 4 | ---- | ---- | 1 | 2 | ---- | ---- |
| Other nonmanufacturing industries | 25 | 10 | 10 | 3 | ---- | ---- | 2 | ---- | ---- |

Union-organization matters were the principal issues in 56 percent of the strikes beginning in March, which included about 55 percent of the total workers involved. In a considerable number of these strikes wages and hours were important but secondary issues. Disputes principally over wages and hours accounted for about 26 percent of the strikes and included 30 percent of the total workers involved. The majority of these were demands for wage increases. About 18 percent of the strikes beginning in the month were sympathy, union rivalry, or jurisdictional strikes and disputes over such matters as seniority, transfer of operations to another city, objection to certain foremen, and increased work load. The largest stoppage in the latter group involved over 2,000 employees at the Fisher Body and Chevrolet plants of the General Motors Corporation in Oakland, Calif., in protest against the company's disciplinary action against a small group of employees who had objected to an alleged speed-up in production rates.

There were 787 strikes involving over 275,000 workers, which began in the first 3 months of 1941. The majority of these strikes (54 percent) were principally over union-organization matters and they included 53 percent of the total workers involved. Strikes over wage-and-hour issues accounted for 28 percent of the strikes beginning in the 3-month period, and involved about 29 percent of the total workers.

TABLE 6.—*Strikes Beginning in March 1941, by Major Issues Involved, With Cumulative Figures for the Period, January to March 1941*

| Major issue | Strikes beginning in March 1941 | | | | Strikes beginning in period January to March 1941 | | | |
|---|---|---|---|---|---|---|---|---|
| | Number | Percent of total | Workers involved | Percent of total | Number | Percent of total | Workers involved | Percent of total |
| All issues | 316 | 100.0 | 115,076 | 100.0 | 787 | 100.0 | 275,492 | 100.0 |
| Wages and hours | 83 | 26.3 | 34,350 | 29.8 | 220 | 28.0 | 79,621 | 28.9 |
| Wage increase | 71 | 22.5 | 26,058 | 22.6 | 182 | 23.1 | 66,859 | 24.3 |
| Wage decrease | 5 | 1.6 | 1,510 | 1.3 | 14 | 1.8 | 3,470 | 1.3 |
| Wage increase, hour decrease | 5 | 1.6 | 6,675 | 5.8 | 17 | 2.2 | 8,906 | 3.2 |
| Wage decrease, hour increase | 1 | .3 | 100 | .1 | 2 | .3 | 107 | (1) |
| Hour increase | | | | | 1 | .1 | 18 | (1) |
| Hour decrease | 1 | .3 | 7 | (1) | 4 | .5 | 261 | .1 |
| Union organization | 177 | 56.0 | 63,031 | 54.8 | 428 | 54.3 | 145,967 | 53.0 |
| Recognition | 42 | 13.3 | 27,144 | 23.7 | 93 | 11.8 | 49,106 | 17.9 |
| Recognition and wages | 71 | 22.5 | 15,725 | 13.7 | 160 | 20.2 | 48,952 | 17.8 |
| Recognition, wages, and hours | 11 | 3.5 | 1,071 | .9 | 43 | 5.5 | 3,697 | 1.3 |
| Discrimination | 9 | 2.8 | 1,283 | 1.1 | 37 | 4.7 | 6,098 | 2.2 |
| Strengthening bargaining position | 13 | 4.1 | 10,722 | 9.3 | 21 | 2.7 | 14,780 | 5.4 |
| Closed or union shop | 29 | 9.2 | 6,246 | 5.4 | 63 | 8.0 | 20,759 | 7.5 |
| Other | 2 | .6 | 840 | .7 | 11 | 1.4 | 2,575 | .9 |
| Miscellaneous | 56 | 17.7 | 17,695 | 15.4 | 139 | 17.7 | 49,904 | 18.1 |
| Sympathy | 3 | .9 | 93 | .1 | 7 | .9 | 333 | .1 |
| Rival unions or factions | 16 | 5.1 | 2,094 | 1.8 | 36 | 4.6 | 11,130 | 4.0 |
| Jurisdiction [2] | 5 | 1.6 | 2,035 | 1.8 | 19 | 2.4 | 3,071 | 1.1 |
| Other | 28 | 8.8 | 13,316 | 11.6 | 67 | 8.5 | 34,710 | 12.7 |
| Not reported | 4 | 1.3 | 157 | .1 | 10 | 1.3 | 660 | .2 |

[1] Less than a tenth of 1 percent.
[2] It is probable that the figures here given do not include all jurisdictional strikes. Due to the local nature of these disputes, it is difficult for the Bureau to find out about all of them.

In table 7, the 787 strikes beginning in the first quarter of 1941 are classified according to affiliations of the unions involved. American Federation of Labor unions were involved in about 55 percent of the strikes, which included 30 percent of the total workers involved. Unions affiliated with the Congress of Industrial Organizations were involved in 36 percent of the strikes and these included about 62 percent of the total workers. Two rival unions were involved in 4 percent of the strikes, which included 3.5 percent of the total workers. In less than 3 percent of the strikes, no union organization was involved. Among the largest of these was a week-long strike early in March at the White Oak and Proximity mills of the Proximity Manufacturing Co. in Greensboro, N. C. About 3,000 workers were involved who sought an increase in wages and adjustments in the work loads in some departments.

TABLE 7.—*Strikes Beginning in the First 3 Months of 1941, by Affiliations of Labor Organizations Involved*

| Labor organization involved | Strikes | | Workers involved | |
|---|---|---|---|---|
| | Number | Percent of total | Number | Percent of total |
| Total | 787 | 100.0 | 275,492 | 100.0 |
| American Federation of Labor | 432 | 54.9 | 81,600 | 29.6 |
| Congress of Industrial Organizations | 283 | 36.0 | 169,280 | 61.6 |
| Unaffiliated unions | 9 | 1.1 | 6,197 | 2.2 |
| Railroad brotherhoods | 1 | .1 | 68 | (1) |
| Two rival unions | 33 | 4.2 | 9,700 | 3.5 |
| Company unions | 4 | .5 | 850 | .3 |
| No organization | 20 | 2.5 | 7,721 | 2.8 |
| Organization involved, but type not reported | 3 | .4 | 44 | (1) |
| Not reported | 2 | .3 | 32 | (1) |

[1] Less than a tenth of 1 percent.

The 730 strikes which ended in the first 3 months of 1941 had an average duration of 19 calendar days. Forty-two percent of them lasted less than a week, 41 percent lasted from a week up to a month, about 12 percent were in effect from 1 to 3 months, and 5 percent (33 strikes) had been in effect 3 months or more. Most of the strikes in the latter group were small, only 4 of them involving as many as 200 workers. (See table 8.)

Government officials or boards assisted in negotiating settlements for 68.5 percent of the workers involved in the strikes ending in the first quarter of 1941. Nearly half (48.6 percent) of the strikes ending during this period were settled with their help. Union officials and employers directly negotiated settlements in 35.5 percent of the strikes, which included 21 percent of the total workers involved. Nearly 13 percent of the strikes, in which about 8 percent of the strikers were involved, were terminated without formal settlement. In most of these cases the striking workers abandoned their strikes

and returned to work on employers' terms or they lost their jobs when vacancies were filled by new workers or operations were permanently closed. (See table 9.)

TABLE 8.—*Strikes Ending in the 3-Month Period, January to March 1941, by Industry Group and Duration*

| Industry group | Total | Number of strikes with duration of— | | | | | |
|---|---|---|---|---|---|---|---|
| | | Less than 1 week | 1 week and less than ½ month | ½ and less than 1 month | 1 and less than 2 months | 2 and less than 3 months | 3 months or more |
| All industries | 730 | 309 | 188 | 113 | 70 | 17 | 33 |
| *Manufacturing* | | | | | | | |
| Iron, steel, and their products, excluding machinery | 63 | 41 | 13 | 4 | 3 | | 2 |
| Machinery, excluding transportation equipment | 57 | 26 | 17 | 4 | 7 | 3 | |
| Transportation equipment | 37 | 15 | 16 | 4 | 2 | | |
| Nonferrous metals and their products | 20 | 9 | 5 | 1 | 2 | 1 | 2 |
| Lumber and allied products | 47 | 12 | 10 | 14 | 7 | 1 | 3 |
| Stone, clay, and glass products | 21 | 7 | 5 | 6 | | | 3 |
| Textiles and their products | 99 | 41 | 21 | 21 | 8 | 2 | 6 |
| Leather and its manufactures | 8 | 2 | 6 | | | | |
| Food and kindred products | 42 | 13 | 10 | 8 | 8 | 1 | 2 |
| Paper and printing | 20 | 7 | 7 | 3 | 2 | 1 | |
| Chemicals and allied products | 10 | 3 | 3 | 2 | 2 | | |
| Rubber products | 7 | 5 | | | 1 | | 1 |
| Miscellaneous manufacturing | 26 | 5 | 6 | 7 | 5 | 2 | 1 |
| *Nonmanufacturing* | | | | | | | |
| Extraction of minerals | 24 | 14 | 5 | 3 | | 1 | 1 |
| Transportation and communication | 35 | 14 | 10 | 7 | 2 | 1 | 1 |
| Trade | 68 | 25 | 17 | 12 | 8 | 3 | 3 |
| Domestic and personal service | 33 | 16 | 5 | 3 | 3 | 1 | 5 |
| Professional service | 5 | 4 | | 1 | | | |
| Building and construction | 77 | 39 | 20 | 10 | 6 | | 2 |
| Agriculture and fishing | 6 | 1 | 3 | 1 | 1 | | |
| WPA and relief projects | 1 | | | | | | 1 |
| Other nonmanufacturing industries | 24 | 10 | 9 | 2 | 3 | | |

TABLE 9.—*Methods of Negotiating Settlements of Strikes Ending in the 3-Month Period, January to March 1941*

| Settlement negotiations carried on by— | Strikes | | Workers involved | |
|---|---|---|---|---|
| | Number | Percent of total | Number | Percent of total |
| Total | 730 | 100.0 | 240,562 | 100.0 |
| Employers and workers directly | 13 | 1.8 | 2,576 | 1.1 |
| Employers and representatives of organized workers directly | 259 | 35.5 | 50,761 | 21.1 |
| Government officials or boards | 355 | 48.6 | 165,204 | 68.5 |
| Private conciliators or arbitrators | 10 | 1.4 | 2,046 | .9 |
| Terminated without formal settlement | 92 | 12.6 | 19,849 | 8.3 |
| Not reported | 1 | .1 | 126 | .1 |

About 42 percent of the strikes ending in the first 3 months of the year were substantially won by the workers, 33 percent were compromised, and 16 percent brought little or no gains. The workers obtaining compromise settlements amounted to about 53 percent of the total workers involved, those gaining substantially all their demands amounted to 27 percent, and those involved in the strikes

which brought them little or no gains amounted to 10 percent of the total workers. (See table 10.)

TABLE 10.—*Results of Strikes Ending in the 3-Month Period, January to March 1941*

| Result | Strikes | | Workers involved | |
|---|---|---|---|---|
| | Number | Percent of total | Number | Percent of total |
| Total | 730 | 100.0 | 240,562 | 100.0 |
| Substantial gains to workers | 303 | 41.5 | 65,809 | 27.4 |
| Partial gains or compromises | 239 | 32.7 | 126,775 | 52.7 |
| Little or no gains to workers | 114 | 15.6 | 24,122 | 10.0 |
| Jurisdiction, rival union, or faction settlements | 53 | 7.3 | 13,796 | 5.7 |
| Indeterminate | 11 | 1.5 | 9,215 | 3.8 |
| Not reported | 10 | 1.4 | 845 | .4 |

The workers won substantially what was demanded in 45 percent of the wage-and-hour strikes taking place during the first quarter of 1941, obtained compromise settlements in 42 percent, and made little or no gains in 13 percent. The union-organization strikes brought substantial gains in 47 percent of the strikes, compromise settlements in 33 percent, and little or no gains in 19 percent.

TABLE 11.—*Results of Strikes Ending in the 3-Month Period, January to March 1941, in Relation to Major Issues Involved*

| Major issue | Total | Strikes resulting in— | | | | | |
|---|---|---|---|---|---|---|---|
| | | Substantial gains to workers | Partial gains or compromises | Little or no gains to workers | Jurisdiction, rival union, or faction settlements | Indeterminate | Not reported |
| | **Strikes** | | | | | | |
| All issues | 730 | 303 | 239 | 114 | 53 | 11 | 10 |
| Wages and hours | 205 | 92 | 87 | 26 | | | |
| Union organization | 388 | 181 | 126 | 74 | | 6 | 1 |
| Miscellaneous | 137 | 30 | 26 | 14 | 53 | 5 | 9 |
| | **Percentage distribution** | | | | | | |
| All issues | 100.0 | 41.5 | 32.7 | 15.6 | 7.3 | 1.5 | 1.4 |
| Wages and hours | 100.0 | 44.9 | 42.4 | 12.7 | | | |
| Union organization | 100.0 | 46.6 | 32.5 | 19.1 | | 1.5 | .3 |
| Miscellaneous | 100.0 | 21.9 | 19.0 | 10.2 | 38.7 | 3.6 | 6.6 |
| | **Workers involved** | | | | | | |
| All issues | 240,562 | 65,809 | 126,775 | 24,122 | 13,796 | 9,215 | 845 |
| Wages and hours | 71,930 | 18,988 | 46,098 | 6,844 | | | |
| Union organization | 122,212 | 38,999 | 67,477 | 10,059 | | 5,551 | 126 |
| Miscellaneous | 46,420 | 7,822 | 13,200 | 7,219 | 13,796 | 3,664 | 719 |
| | **Percentage distribution** | | | | | | |
| All issues | 100.0 | 27.4 | 52.7 | 10.0 | 5.7 | 3.8 | 0.4 |
| Wages and hours | 100.0 | 26.4 | 64.1 | 9.5 | | | |
| Union organization | 100.0 | 31.9 | 55.3 | 8.2 | | 4.5 | .1 |
| Miscellaneous | 100.0 | 16.9 | 28.4 | 15.6 | 29.7 | 7.9 | 1.5 |

Of the workers involved in the strikes ending in the 3-month period, 26 percent of those involved in the wage-and-hour strikes substantially won their demands, 64 percent obtained compromise settlements, and 10 percent made little or no gains. About 32 percent of the workers involved in the union-organization strikes substantially won their demands, 55 percent obtained compromise settlements, and 8 percent made little or no gains.

## ACTIVITIES OF THE UNITED STATES CONCILIATION SERVICE, MAY 1941

THE United States Conciliation Service, in May, disposed of 602 situations, involving 428,138 workers. The services of this agency were requested by the employers, employees, and other interested parties.

Of these situations, 456 were strikes, threatened strikes, lock-outs, and controversies, involving 292,774 workers. The remaining situations, involving 135,364 workers, included such services as filling requests for information, adjusting complaints, consulting with labor and management, etc.

TABLE 1.—*Situations Disposed of by U. S. Conciliation Service, May 1941, by Industries*

| Industry | Disputes | | Other situations | | Total | |
|---|---|---|---|---|---|---|
| | Number | Workers involved | Number | Workers involved | Number | Workers involved |
| All industries | 456 | 292,774 | 146 | 135,364 | 602 | 428,138 |
| Automobile | 19 | 3,116 | 5 | 723 | 24 | 3,839 |
| Building trades | 50 | 71,860 | 19 | 3,395 | 69 | 75,255 |
| Chemicals | 11 | 9,686 | 2 | 50 | 13 | 9,736 |
| Communications | 1 | 12 | | | 1 | 12 |
| Domestic and personal | 8 | 312 | 5 | 231 | 13 | 543 |
| Electrical equipment | 12 | 5,588 | 4 | 583 | 16 | 6,171 |
| Food | 36 | 18,334 | 10 | 943 | 46 | 19,277 |
| Furniture | 20 | 4,532 | 3 | 505 | 23 | 5,037 |
| Iron and steel | 55 | 30,332 | 12 | 910 | 67 | 31,242 |
| Leather | 4 | 1,270 | | | 4 | 1,270 |
| Lumber | 16 | 23,064 | 3 | 62 | 19 | 23,126 |
| Machinery | 28 | 12,202 | 9 | 1,570 | 37 | 13,772 |
| Maritime | 8 | 5,840 | 6 | 8,792 | 14 | 14,632 |
| Mining | 15 | 5,055 | 4 | 100,751 | 19 | 105,806 |
| Motion picture | 1 | 24 | 1 | 3 | 2 | 27 |
| Nonferrous metals | 14 | 13,940 | 4 | 3,757 | 18 | 17,697 |
| Paper | 7 | 1,379 | 3 | 3 | 10 | 1,382 |
| Petroleum | 3 | 5,840 | 2 | 7 | 5 | 5,847 |
| Printing | 4 | 152 | 3 | 5 | 7 | 157 |
| Professional | 1 | 26 | 3 | 140 | 4 | 166 |
| Rubber | 10 | 5,392 | 3 | 1,020 | 13 | 6,412 |
| Stone, clay, and glass | 24 | 4,114 | 2 | 104 | 26 | 4,218 |
| Textile | 39 | 23,503 | 20 | 8,983 | 59 | 32,486 |
| Tobacco | 2 | 1,066 | 1 | 1 | 3 | 1,067 |
| Trade | 17 | 1,436 | 5 | 410 | 22 | 1,846 |
| Transportation | 20 | 3,728 | 2 | 63 | 22 | 3,791 |
| Transportation equipment | 12 | 30,242 | 2 | 12 | 14 | 30,254 |
| Utilities | 12 | 5,742 | 1 | 1 | 13 | 5,743 |
| Unclassified | 7 | 4,987 | 12 | 2,340 | 19 | 7,327 |

The facilities of the Service were used in 28 major industrial fields, such as building trades, and the manufacture of foods, iron and steel, textiles, etc. (table 1), and were utilized by employees and employers in 42 States and the District of Columbia and Hawaii (table 2).

TABLE 2.—*Situations Disposed of by U. S. Conciliation Service, May 1941, by States*

| State | Disputes | | Other situations | | Total | |
|---|---|---|---|---|---|---|
| | Number | Workers involved | Number | Workers involved | Number | Workers involved |
| All States | 456 | 292,774 | 146 | 135,364 | 602 | 428,138 |
| Alabama | 13 | 5,734 | 3 | 1,509 | 16 | 7,243 |
| Arkansas | 3 | 2,570 | | | 3 | 2,570 |
| Arizona | 4 | 538 | | | 4 | 538 |
| California | 26 | 49,831 | 9 | 747 | 35 | 50,578 |
| Connecticut | 5 | 7,609 | 1 | 50 | 6 | 7,659 |
| Delaware | 1 | 125 | | | 1 | 125 |
| District of Columbia | 11 | 7,897 | 5 | 222 | 16 | 8,119 |
| Florida | 6 | 368 | 4 | 8,780 | 10 | 9,148 |
| Georgia | 8 | 1,921 | 1 | 1 | 9 | 1,922 |
| Hawaii | 4 | 370 | 1 | 1 | 5 | 371 |
| Illinois | 16 | 4,403 | 9 | 517 | 25 | 4,920 |
| Indiana | 15 | 17,750 | 7 | 1,804 | 22 | 19,554 |
| Iowa | 7 | 1,483 | 1 | 90 | 8 | 1,573 |
| Kansas | 2 | 154 | 1 | 2 | 3 | 156 |
| Kentucky | 23 | 4,696 | 1 | 1 | 24 | 4,697 |
| Louisiana | 19 | 5,948 | | | 19 | 5,948 |
| Maine | 3 | 3,000 | | | 3 | 3,000 |
| Maryland | 2 | 13 | 1 | 1 | 3 | 14 |
| Massachusetts | 9 | 1,254 | 14 | 6,265 | 23 | 7,519 |
| Michigan | 43 | 47,199 | 17 | 2,702 | 60 | 49,901 |
| Minnesota | 7 | 1,205 | 1 | 1 | 8 | 1,206 |
| Mississippi | 2 | 153 | 2 | 460 | 4 | 613 |
| Missouri | 15 | 3,559 | 4 | 5 | 19 | 3,564 |
| Nebraska | 1 | 144 | | | 1 | 144 |
| Nevada | 1 | 150 | 1 | 400 | 2 | 550 |
| New Hampshire | 1 | 115 | | | 1 | 115 |
| New Jersey | 16 | 8,504 | 3 | 335 | 19 | 8,839 |
| New Mexico | 1 | 30 | 1 | 1 | 2 | 31 |
| New York | 24 | 18,676 | 10 | 2,236 | 34 | 20,912 |
| North Carolina | 28 | 7,309 | 5 | 1,162 | 33 | 8,471 |
| Ohio | 47 | 27,108 | 17 | 3,366 | 64 | 30,474 |
| Oklahoma | 3 | 175 | 1 | 3 | 4 | 178 |
| Oregon | 4 | 9,440 | | | 4 | 9,440 |
| Pennsylvania | 27 | 14,604 | 10 | 103,200 | 37 | 117,804 |
| Rhode Island | 4 | 1,102 | 3 | 310 | 7 | 1,412 |
| South Carolina | 1 | 435 | 1 | 1 | 2 | 436 |
| Tennessee | 11 | 9,607 | 1 | 200 | 12 | 9,807 |
| Texas | 4 | 2,539 | 6 | 819 | 10 | 3,358 |
| Utah | 1 | 450 | 1 | 100 | 2 | 550 |
| Virginia | 15 | 7,189 | 2 | 2 | 17 | 7,191 |
| Washington | 7 | 13,122 | 1 | 1 | 8 | 13,123 |
| West Virginia | 7 | 1,826 | | | 7 | 1,826 |
| Wisconsin | 8 | 2,369 | 1 | 70 | 9 | 2,439 |
| Wyoming | 1 | 100 | | | 1 | 100 |

## ACTIVITIES OF NATIONAL MEDIATION BOARD IN JUNE 1941

SIX cases were pending before the National Mediation Board on June 1, 1941, and in the course of the month 10 additional disputes were certified to the Board. Settlements were reached in 9 cases;

work was resumed in 1 case when the United States Army occupied the plant; and the remaining 6 were still pending on June 30. The status of the cases handled by the Board in the month of June is shown as of June 30, 1941, in the following table. For earlier reports the Monthly Labor Review for May and June 1941 may be consulted. In all, 46 cases have been certified to the Board in the period since it was established.

*Status of National Defense Mediation Board Cases as of June 30, 1941*

| Case | Date of strike | Number of men involved | Date certified to Board | Date of back-to-work agreement |
|---|---|---|---|---|
| American Potash | Mar. 15 | 1,300 | Apr. 23 | |
| Curtis Manufacturing Co | Apr. 7 | 300 | May 3 | June 2 |
| Twin District Council | May 9 | 12,000 | May 9 | |
| Columbia Basin Area Loggers | [1] | 4,000 | May 12 | June 5 |
| E. W. Bliss Co | [1] | 1,500 | May 22 | June 20 |
| North American Aviation, Inc | June 5 | 11,000 | May 22 | [4] |
| Bethlehem Steel Co., Shipbuilding Division | [2] | 5,000 | June 2 | June 4 |
| Aluminum Co. of America | [1] | 4,500 | June 4 | June 10 |
| Marlin-Rockwell Corporation | [2] | 1,225 | June 7 | June 8 |
| Bohn Aluminum & Brass Corporation | June 9 | 4,600 | June 9 | June 12 |
| Curtiss-Wright Co | [1] | 960 | June 12 | June 12 |
| Duquesne Light Co | [1] | 312 | June 18 | |
| Sealed Power Corporation | [1] | 1,163 | June 21 | |
| Western Cartridge Co | [1] | 4,500 | June 24 | |
| 189 trucking concerns | June 1 | 2,800 | June 25 | June 30 |
| Federal Shipbuilding Corporation | [1] | 16,000 | June 30 | |

[1] Postponed at request of Board.
[2] Army occupied plant on June 9. Men back at work.
[3] Returning to work at request of Board.

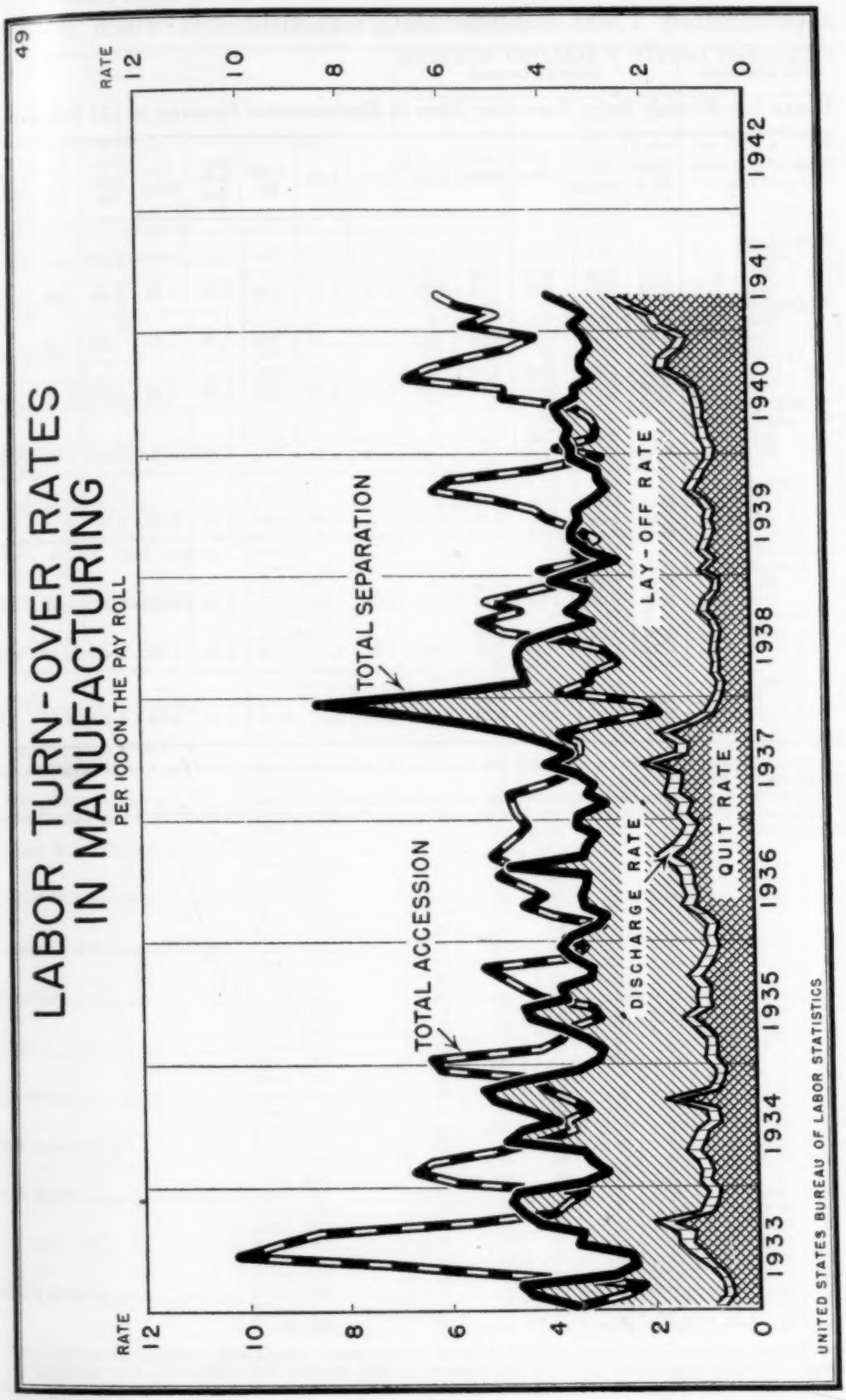
# *Labor Turn-Over*

## LABOR TURN-OVER IN MANUFACTURING, APRIL 1941

THE intensified demand for workers which has been apparent in defense industries during recent months has spread to many industries manufacturing products not primarily required in the National Defense Program. Reports on labor turn-over received from plants in 135 industries indicate that accessions exceeded separations in 104 instances. The continued high accession rates in primary-defense and in construction-materials industries were mainly responsible for the average accession rate in all manufacturing of 6.04 per 100 employees in April. This represented a sharp increase over the March figure (5.62) and over the April 1940 rate of 3.05.

The highest quit rate on record (2.08 per 100 employees) was reported for all manufacturing in April, indicating that workers in increasing numbers are leaving jobs because of favorable reemployment opportunities. Despite the fact that the accession rate for all manufacturing was at an unusually high level, nearly 1 in every 3 workers added to factory pay rolls replaced a quit. Among the key defense industries, new record highs in quit rates were established in shipbuilding, machine tools, foundries and machine shops, and brass, bronze, and copper products. The lay-off rate of 1.19 was slightly higher than that for the preceding month and the discharge rate rose from 0.21 to 0.25. Revised data for military separations show that the rate for April amounted to 0.28 per 100 employees as compared with 0.32 in March, 0.29 in February, and 0.19 in January. The military separation rate in April for durable goods was 0.32 as compared with that for nondurable goods of 0.22—both groups showing slightly lower military separation rates than in the preceding month.

In many industries (a notable exception being slaughtering and meat packing) the proportion of new hires far exceeded those rehired after separations of less than 3 months. In aircraft the ratio of rehirings to new hirings was 1 to 33; brass, bronze, and copper products, 1 to 16; foundries and machine shops, 1 to 12; hardware, 1 to 17; machine tools, 1 to 19; and steam and hot-water heating apparatus, 1 to 29.


49
LABOR TURN-OVER RATES IN MANUFACTURING
PER 100 ON THE PAY ROLL
RATE
12
10
8
6
4
2
0
TOTAL ACCESSION
TOTAL SEPARATION
DISCHARGE RATE
QUIT RATE
LAY-OFF RATE
1933
1934
1935
1936
1937
1938
1939
1940
1941
1942
UNITED STATES BUREAU OF LABOR STATISTICS

The Bureau of Labor Statistics' survey of labor turn-over covers approximately 7,500 manufacturing establishments which in April employed nearly 3,400,000 workers.

TABLE 1.—*Monthly Labor Turn-Over Rates in Representative Factories in 135 Industries*[1]

| Class of turn-over and year | January | February | March | April | May | June | July | August | September | October | November | December | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Separations: | | | | | | | | | | | | | |
| Quits: | | | | | | | | | | | | | |
| 1941 | 1.31 | 1.33 | 1.70 | 2.08 | | | | | | | | | |
| 1940 | .63 | .62 | .67 | .74 | 0.77 | 0.78 | 0.85 | 1.10 | 1.37 | 1.31 | 1.10 | 0.99 | 0.91 |
| Discharges: | | | | | | | | | | | | | |
| 1941 | .18 | .19 | .21 | .25 | | | | | | | | | |
| 1940 | .14 | .16 | .15 | .13 | .13 | .14 | .14 | .16 | .16 | .19 | .18 | .16 | .15 |
| Lay-offs:[2] | | | | | | | | | | | | | |
| 1941 | 1.61 | 1.20 | 1.06 | 1.19 | | | | | | | | | |
| 1940 | 2.55 | 2.67 | 2.53 | 2.69 | 2.78 | 2.32 | 2.25 | 1.63 | 1.48 | 1.53 | 1.60 | 1.86 | 2.16 |
| Miscellaneous separations:[3] | | | | | | | | | | | | | |
| 1941 | .31 | .43 | .43 | .37 | | | | | | | | | |
| 1940 | .11 | .11 | .11 | .10 | .10 | .12 | .11 | .11 | .21 | .20 | .18 | .15 | .13 |
| Total | | | | | | | | | | | | | |
| 1941 | 3.41 | 3.15 | 3.40 | 3.89 | | | | | | | | | |
| 1940 | 3.43 | 3.56 | 3.46 | 3.66 | 3.78 | 3.36 | 3.35 | 3.00 | 3.22 | 3.23 | 3.06 | 3.16 | 3.35 |
| Accessions: | | | | | | | | | | | | | |
| Rehirings: | | | | | | | | | | | | | |
| 1941 | 1.45 | 1.08 | 1.24 | 1.04 | | | | | | | | | |
| 1940 | 1.96 | 1.26 | 1.38 | 1.42 | 1.49 | 2.06 | 1.94 | 3.04 | 2.20 | 1.22 | 1.18 | 1.13 | 1.69 |
| New hirings: | | | | | | | | | | | | | |
| 1941 | 4.09 | 3.84 | 4.38 | 5.00 | | | | | | | | | |
| 1940 | 1.78 | 1.72 | 1.56 | 1.63 | 1.87 | 2.70 | 2.83 | 3.59 | 4.01 | 4.30 | 3.47 | 2.98 | 2.70 |
| Total: | | | | | | | | | | | | | |
| 1941 | 5.54 | 4.92 | 5.62 | 6.04 | | | | | | | | | |
| 1940 | 3.74 | 2.98 | 2.94 | 3.05 | 3.36 | 4.76 | 4.77 | 6.63 | 6.21 | 5.52 | 4.65 | 4.11 | 4.39 |

[1] The various turn-over rates represent the number of quits, discharges, lay-offs, total separations, and accessions per 100 employees.

[2] Including temporary, indeterminate, and permanent lay-offs.

[3] Beginning with September 1940, workers leaving to enter the Army or Navy are included in "miscellaneous separations."

TABLE 2.—*Monthly Turn-Over Rates in 39 Manufacturing Industries* [1]

[Rates are per 100 employees]

| Industry | Date | Separation rates | | | | | Accession rates | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Quit [2] | Discharge | Layoff | Miscellaneous separation [2] | Total separation | Rehiring | New hiring | Total accession |
| Agricultural implements | April 1941 | 1.72 | 0.17 | 0.61 | 0.59 | 3.09 | 0.76 | 2.38 | 3.14 |
| | March 1941 | 1.42 | .18 | .41 | .58 | 2.59 | .68 | 3.54 | 4.22 |
| | April 1940 | .62 | .08 | 2.26 | .09 | 3.05 | 1.07 | 1.09 | 2.16 |
| Aircraft | April 1941 | 2.46 | .42 | .42 | .35 | 3.65 | .29 | 9.52 | 9.81 |
| | March 1941 | 2.28 | .42 | .79 | .50 | 3.99 | .22 | 8.43 | 8.65 |
| | April 1940 | 2.00 | .40 | .27 | .02 | 2.69 | 1.94 | 8.20 | 10.14 |
| Aluminum | April 1941 | 2.28 | .38 | .94 | .63 | 4.23 | .75 | 6.57 | 7.32 |
| | March 1941 | 1.54 | .22 | 2.32 | 1.24 | 5.32 | .60 | 2.80 | 3.40 |
| | April 1940 | .69 | .07 | 1.48 | .37 | 2.61 | 1.02 | 1.21 | 2.23 |
| Automobiles and bodies | April 1941 [3] | 1.99 | .19 | 1.77 | .54 | 4.49 | 2.46 | 3.71 | 6.17 |
| | March 1941 [4] | 1.33 | .11 | 3.04 | .55 | 5.03 | 1.63 | 3.33 | 4.96 |
| | April 1940 | .68 | .06 | 5.57 | .06 | 6.37 | 1.20 | 1.09 | 2.29 |
| Automobile parts and equipment | April 1941 | 2.10 | .35 | 2.48 | .63 | 5.56 | .84 | 5.36 | 6.20 |
| | March 1941 | 1.72 | .36 | 1.05 | .40 | 3.53 | 1.24 | 6.25 | 7.49 |
| | April 1940 | .74 | .13 | 4.79 | .08 | 5.74 | 1.91 | 2.28 | 4.19 |
| Boots and shoes | April 1941 | 1.73 | .11 | 1.47 | .41 | 3.72 | .65 | 2.47 | 3.12 |
| | March 1941 | 1.38 | .18 | .74 | .31 | 2.61 | .88 | 2.61 | 3.49 |
| | April 1940 | .72 | .11 | 3.30 | .06 | 4.19 | .80 | .69 | 1.49 |
| Brass, bronze, and copper products | April 1941 | 2.87 | .35 | 1.25 | .64 | 5.11 | .42 | 6.84 | 7.26 |
| | March 1941 | 2.06 | .19 | 1.16 | .62 | 4.03 | .21 | 5.76 | 5.97 |
| | April 1940 | .53 | .08 | 2.63 | .15 | 3.39 | 1.53 | .69 | 2.22 |
| Brick, tile, and terra cotta | April 1941 | 2.19 | .42 | .87 | .37 | 3.85 | 5.00 | 7.17 | 12.17 |
| | March 1941 | 1.61 | .14 | 1.38 | .37 | 3.50 | 1.93 | 4.55 | 6.48 |
| | April 1940 | .55 | .09 | 4.69 | .06 | 5.39 | 5.49 | 2.41 | 7.90 |
| Cast-iron pipe | April 1941 | 1.00 | .21 | .07 | .25 | 1.53 | 1.13 | 2.65 | 3.78 |
| | March 1941 | 1.13 | .39 | .83 | .51 | 2.86 | .96 | 2.65 | 3.61 |
| | April 1940 | .26 | .33 | .49 | .14 | 1.22 | .63 | .91 | 1.54 |
| Cement | April 1941 | .83 | .13 | .37 | .47 | 1.80 | 3.76 | 4.64 | 8.40 |
| | March 1941 | .64 | .04 | .64 | .51 | 1.83 | 9.21 | 2.52 | 11.73 |
| | April 1940 | .17 | .06 | .97 | .16 | 1.36 | 6.51 | 2.69 | 9.20 |
| Cigars and cigarettes | April 1941 | 2.15 | .11 | .44 | .15 | 2.85 | 1.34 | 1.96 | 3.30 |
| | March 1941 | 1.76 | .11 | 1.64 | .25 | 3.76 | 1.52 | 1.55 | 3.07 |
| | April 1940 | 1.16 | .12 | .89 | .22 | 2.39 | 1.07 | 1.45 | 2.52 |
| Cotton manufacturing | April 1941 | 3.37 | .29 | .62 | .30 | 4.58 | 1.19 | 4.98 | 6.17 |
| | March 1941 | 2.73 | .23 | .67 | .34 | 3.97 | 1.21 | 4.45 | 5.66 |
| | April 1940 | 1.36 | .17 | 3.66 | .09 | 5.28 | 1.31 | 1.71 | 3.02 |
| Dyeing and finishing | April 1941 | 2.73 | .30 | .95 | .28 | 4.26 | .59 | 4.16 | 4.75 |
| | March 1941 | 2.29 | .26 | .90 | .47 | 3.92 | .49 | 4.33 | 4.82 |
| | April 1940 | .79 | .13 | 2.88 | .05 | 3.85 | 1.40 | .68 | 2.08 |
| Electrical machinery | April 1941 | 1.70 | .24 | .28 | .58 | 2.80 | .83 | 5.95 | 6.78 |
| | March 1941 | 1.19 | .17 | .23 | .75 | 2.34 | 1.02 | 5.57 | 6.59 |
| | April 1940 | .43 | .06 | .96 | .28 | 1.73 | .69 | 1.21 | 1.90 |
| Foundries and machine shops | April 1941 | 2.52 | .41 | 1.00 | .38 | 4.31 | .58 | 6.69 | 7.27 |
| | March 1941 | 1.82 | .38 | .67 | .55 | 3.42 | .32 | 6.52 | 6.84 |
| | April 1940 | .66 | .17 | 1.58 | .10 | 2.51 | .80 | 1.73 | 2.53 |
| Furniture | April 1941 | 2.92 | .26 | .81 | .46 | 4.45 | 1.25 | 4.91 | 6.16 |
| | March 1941 | 2.19 | .37 | 1.02 | .51 | 4.09 | 3.10 | 4.24 | 7.34 |
| | April 1940 | .84 | .20 | 2.28 | .10 | 3.42 | 1.54 | 1.89 | 3.43 |
| Glass | April 1941 | 1.22 | .16 | .87 | .37 | 2.62 | .89 | 3.76 | 4.65 |
| | March 1941 | .87 | .09 | 1.42 | .68 | 3.06 | 1.57 | 3.64 | 5.21 |
| | April 1940 | .31 | .05 | 1.72 | .09 | 2.17 | 1.46 | 1.09 | 2.55 |
| Hardware | April 1941 | 3.93 | .28 | .21 | .52 | 4.94 | .32 | 5.57 | 5.89 |
| | March 1941 | 3.14 | .43 | .54 | .60 | 4.71 | .76 | 5.47 | 6.23 |
| | April 1940 | .82 | .07 | 1.45 | .05 | 2.39 | .53 | .83 | 1.36 |
| Iron and steel | April 1941 | .99 | .12 | .19 | .52 | 1.82 | .47 | 3.42 | 3.89 |
| | March 1941 | .93 | .13 | .24 | .55 | 1.85 | .33 | 2.80 | 3.13 |
| | April 1940 | .40 | .08 | 1.92 | .15 | 2.55 | .64 | .48 | 1.12 |
| Knit goods | April 1941 | 2.06 | .15 | .68 | .13 | 3.02 | 1.27 | 2.93 | 4.20 |
| | March 1941 | 1.38 | .13 | .80 | .13 | 2.44 | 1.20 | 2.92 | 4.12 |
| | April 1940 | .72 | .08 | 2.12 | .02 | 2.94 | 1.12 | .90 | 2.02 |
| Machine tools | April 1941 | 2.22 | .47 | .16 | .25 | 3.10 | .30 | 5.58 | 5.88 |
| | March 1941 | 1.85 | .42 | .07 | .54 | 2.88 | .20 | 5.75 | 5.95 |
| | April 1940 | 1.14 | .40 | .25 | .11 | 1.90 | .16 | 4.35 | 4.51 |
| Men's clothing | April 1941 | 1.57 | .19 | 2.16 | .16 | 4.08 | 1.05 | 2.69 | 3.74 |
| | March 1941 | 1.35 | .17 | 1.11 | .13 | 2.76 | .69 | 2.85 | 3.54 |
| | April 1940 | .75 | .08 | 10.22 | .04 | 11.09 | 1.04 | .94 | 1.98 |

[1] No individual industry data shown unless reports cover at least 25 percent of industrial employment.
[2] Beginning with September 1940, workers leaving to enter the Army or Navy are included in "miscellaneous separations."
[3] Preliminary.
[4] Revised.

TABLE 2.—*Monthly Turn-Over Rates in 39 Manufacturing Industries*—Continued

| Industry | Date | Separation rates | | | | | Accession rates | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Quit | Discharge | Layoff | Miscellaneous separation | Total separation | Rehiring | New hiring | Total accession |
| Paints and varnishes | April 1941 | 1.96 | 0.35 | 0.38 | 0.40 | 3.09 | 0.73 | 5.92 | 6.65 |
| | March 1941 | 1.22 | .37 | .32 | .59 | 2.50 | 1.04 | 4.77 | 5.81 |
| | April 1940 | .47 | .14 | .95 | .08 | 1.64 | .50 | 1.50 | 2.00 |
| Paper and pulp | April 1941 | 1.15 | .17 | .52 | .41 | 2.25 | .31 | 3.94 | 4.25 |
| | March 1941 | .97 | .15 | .74 | .45 | 2.31 | .35 | 3.12 | 3.47 |
| | April 1940 | .43 | .11 | .60 | .17 | 1.31 | .60 | 1.31 | 1.91 |
| Petroleum refining | April 1941 | .38 | .06 | .71 | .33 | 1.48 | .63 | 1.92 | 2.55 |
| | March 1941 | .45 | .03 | .61 | .32 | 1.41 | .62 | .90 | 1.52 |
| | April 1940 | .15 | .05 | .73 | .17 | 1.10 | .66 | 1.56 | 2.22 |
| Planing mills | April 1941 | 2.65 | .31 | 2.30 | .50 | 5.76 | 1.49 | 3.63 | 5.12 |
| | March 1941 | 2.01 | .26 | .84 | .54 | 3.65 | .86 | 2.96 | 3.82 |
| | April 1940 | .74 | .17 | 1.79 | .13 | 2.83 | 2.17 | 1.55 | 3.72 |
| Printing: | | | | | | | | | |
| Book and job | April 1941 | 2.38 | .33 | 3.87 | .76 | 7.34 | 1.93 | 5.54 | 7.47 |
| | March 1941 | .98 | .10 | 2.85 | .36 | 4.29 | 1.66 | 3.11 | 4.77 |
| | April 1940 | .61 | .19 | 3.39 | .12 | 4.31 | 2.42 | 2.00 | 4.42 |
| Newspapers and periodicals | April 1941 | .43 | .31 | .86 | .19 | 1.79 | 1.04 | 1.20 | 2.24 |
| | March 1941 | .71 | .68 | .77 | .18 | 2.34 | 1.25 | 1.35 | 2.60 |
| | April 1940 | .33 | .06 | 1.52 | .09 | 2.00 | 1.06 | .92 | 1.98 |
| Radios and phonographs | April 1941 | 2.29 | .30 | .55 | .24 | 3.38 | 3.16 | 5.93 | 9.09 |
| | March 1941 | 1.94 | .19 | 1.79 | .16 | 4.08 | 1.48 | 3.14 | 4.62 |
| | April 1940 | 1.08 | .12 | 2.32 | .04 | 3.56 | 2.72 | 1.56 | 4.28 |
| Rayon and allied products | April 1941 | .97 | .10 | .21 | .47 | 1.75 | .38 | 3.61 | 3.99 |
| | March 1941 | 1.32 | .08 | .30 | .30 | 2.00 | .69 | 2.30 | 2.99 |
| | April 1940 | 2.43 | .15 | .49 | .03 | 3.10 | 1.05 | 2.95 | 4.00 |
| Rubber boots and shoes | April 1941 | 2.53 | .27 | .57 | .55 | 3.92 | .91 | 6.81 | 7.72 |
| | March 1941 | 1.49 | .19 | .98 | .29 | 2.95 | 1.90 | 4.43 | 6.33 |
| | April 1940 | .58 | .12 | 2.19 | .27 | 3.16 | 1.92 | .58 | 2.50 |
| Rubber tires | April 1941 | 1.16 | .09 | .95 | .30 | 2.50 | .31 | 3.36 | 3.67 |
| | March 1941 | .82 | .19 | .23 | .54 | 1.78 | .46 | 4.03 | 4.49 |
| | April 1940 | .27 | .05 | 1.88 | .11 | 2.31 | 1.25 | .45 | 1.70 |
| Sawmills | April 1941 | 2.43 | .30 | 1.23 | .27 | 4.23 | 2.29 | 4.91 | 7.20 |
| | March 1941 | 2.00 | .21 | 1.98 | .39 | 4.58 | 2.63 | 3.54 | 6.17 |
| | April 1940 | 1.09 | .22 | 2.74 | .10 | 4.15 | 2.71 | 3.00 | 5.71 |
| Shipbuilding | April 1941 | 2.49 | .48 | 4.28 | .55 | 7.80 | 2.18 | 12.16 | 14.34 |
| | March 1941 | 2.00 | .37 | 3.51 | .60 | 6.48 | 2.95 | 10.93 | 13.88 |
| | April 1940 | 1.17 | .30 | 6.53 | .06 | 8.06 | 1.68 | 4.56 | 6.24 |
| Silk and rayon goods | April 1941 | 3.52 | .88 | 1.77 | .18 | 6.35 | 1.13 | 4.91 | 6.04 |
| | March 1941 | 2.38 | .33 | .98 | .21 | 3.90 | 1.38 | 4.23 | 5.61 |
| | April 1940 | .93 | .05 | 4.91 | .12 | 6.01 | 2.05 | 1.51 | 3.56 |
| Slaughtering and meat packing | April 1941 | 1.40 | .20 | 6.93 | .54 | 9.07 | 5.50 | 3.62 | 9.12 |
| | March 1941 | .96 | .13 | 4.53 | .79 | 6.41 | 5.70 | 2.77 | 8.47 |
| | April 1940 | .46 | .23 | 6.73 | .18 | 7.60 | 4.68 | 1.80 | 6.48 |
| Steam and hot-water heating apparatus | April 1941 | 2.62 | .29 | .68 | .48 | 4.07 | .16 | 4.63 | 4.79 |
| | March 1941 | 2.49 | .33 | .25 | .63 | 3.70 | .25 | 4.99 | 5.24 |
| | April 1940 | .54 | .08 | .87 | .09 | 1.58 | .47 | 1.04 | 1.51 |
| Structural and ornamental metalwork | April 1941 | 1.93 | .22 | 2.10 | .56 | 4.81 | .81 | 4.44 | 5.25 |
| | March 1941 | 1.70 | .11 | 1.64 | .31 | 3.76 | .80 | 3.94 | 4.74 |
| | April 1940 | .40 | .03 | 4.45 | .14 | 5.02 | 2.48 | 2.73 | 5.21 |
| Woolen and worsted goods | April 1941 | 3.07 | .25 | 1.01 | .30 | 4.63 | 1.53 | 5.11 | 6.64 |
| | March 1941 | 2.09 | .18 | .96 | .45 | 3.68 | 1.03 | 3.65 | 4.68 |
| | April 1940 | .61 | .11 | 8.67 | .08 | 9.47 | 3.82 | .55 | 4.37 |

# *Wage and Hour Regulation*

## REGULATION OF HOURS OF WORK OF MOTOR-VEHICLE OPERATORS

THE Interstate Commerce Commission on July 12, 1938, under authority of acts of Congress designed for the promotion of safety, issued an order regulating the hours of drivers of motor vehicles engaged in interstate commerce. The regulations, effective October 1, 1938, embodied certain modifications of the Commission's order of December 29, 1937, the enforcement of which had been postponed for reargument upon petition filed by representatives of organized labor.[1] The Commission again, on January 27, 1939, issued an order modifying the regulations, the new order becoming effective on March 1, 1939. This basic order applied originally to common and contract carriers of passengers and property but not to private carriers. A later order, effective October 15, 1940, extended the regulations, with modifications, to private carriers of property; that is, to carriers who engage in the transportation of their own property, as owner, lessee, or bailee, for sale or related commercial purposes or as an incident to the conduct of their enterprise. The interstate character of a shipment may make a trip legally one in interstate commerce even though the trip is wholly within the boundaries of one State.

The limitations on hours of service were designed basically for the purpose of promoting safety and were not intended as a general standard. The Commission stated, in connection with its order of July 12, 1938: "We look with distinct disfavor on carriers or others who use regulations premised on safety as a means of defeating employees' efforts to improve their economic status."

Under the regulations effective on March 1, 1939, a driver was limited to 60 hours "on duty" in any period of 168 consecutive hours (7 days), beginning at the time the driver reports for duty. Carriers conducting business every day of the week might, however, permit drivers in their employ to remain on duty 70 hours in any period of 192 consecutive hours (8 days). "Time on duty" was defined as including "all driving time, time spent loading or unloading, making out reports, waiting for work, and the like." The order limited daily

[1] Summarized in the Monthly Labor Review of September 1938. Later regulations are given in Interstate Commerce Commission's Motor Carrier Safety Regulations, Revised, Washington, 1941, and are interpreted, in application to common and contract carriers, in an administrative ruling of May 16, 1939.

hours of drivers to 10 hours of driving or operating unless they received 8 consecutive hours off duty during or immediately following the 10 hours' aggregate driving. If a motor vehicle is provided with a sleeper berth, with two drivers, periods of driving or sleeping may alternate in any way the men or their employer desire, as long as the 8 hours off duty are not broken into more than two periods. The 10-hour regulation was the basic limitation, but a certain flexibility up to an additional 2 hours was permitted in emergencies, such as certain abnormal weather or traffic conditions. Stops of 10 minutes or less for whatever purpose were defined as driving time; stops of more than 10 minutes were defined not as driving time but as on-duty time unless of such a character as to justify classification as "off duty," but only when a driver is relieved from all work or responsibility for performing work.

Modifications of these basic rules were made in application to private carriers. These included a provision that driver-salesmen who devote more than 50 percent of their time to selling and less than 50 percent to such work as driving, loading, unloading, and the like were limited to 50 hours in any week devoted to driving with no limitation on the amount of time spent on their other duties. This same modification applied to the driver of a motor vehicle controlled and operated by a farmer used in the transportation of his agricultural commodities and products or in the transportation of supplies to his farm.

The Interstate Commerce Commission, by orders of October 29 and November 4, 1940, removed the limitation of 60 hours per week in the case of drivers of motor vehicles engaged solely in making deliveries for retail stores from December 10 to December 25 of each year.

The regulations required reports to the Interstate Commerce Commission on hours of service in case the drivers' hours exceed the basic limitations on hours. Special reports were required for the supplying of information regarding hours of driving between the 10 hours ordinarily permissible and the 12 hours permissible only under emergency conditions. The regulations also required a driver to maintain a daily log unless operating wholly within a municipality or between contiguous municipalities. The driver's daily log is to be filed with the employer and be made available for inspection by the Interstate Commerce Commission, which may call for copies at any time.

The regulations regarding the filing of reports by motor carriers were waived for the present in the case of private carriers of property. The driver's daily-log requirement for private carriers is substantially the same as that for the for-hire carriers, with one exception. The maintenance of this record is not required of drivers of farm trucks, nor is it required of drivers of a private-property carrier's motor vehicles (commonly called work trucks or work cars) specially designed or equipped

for use, and used solely, in the construction or maintenance of the carrier's plants and equipment.

Most of the States have adopted regulations limiting the hours of drivers of motor vehicles. Some of the State regulations, like those of the Interstate Commerce Commission, are primarily designed for the promotion of safety. Others are more largely concerned with the maintenance of general standards and in some instances are more exacting than those of the Interstate Commerce Commission.[2]

## MINIMUM WAGES FOR SUGAR-BEET AND SUGARCANE LABOR

MOST of the State and Federal laws regulating the compensation, hours, and working conditions of wage earners do not apply to workers on farms. An exception is the establishment of minimum wages for sugar-beet and sugarcane labor, under the provisions of the Federal Sugar Act of 1937. This act provided for a quota system for regulating imports and marketings of sugar in the United States and for public assistance to producers of sugar beets and sugarcane. These benefits were granted by Congress under certain conditions. One of the conditions was the establishment of "a fair and reasonable rate" of pay for workers. The determination of what is "fair and reasonable" is made by the Secretary of Agriculture after public hearings and investigation.[3]

Annual determinations of wage rates in the sugar-beet and sugarcane industries have been made by the Secretary of Agriculture since 1937. The determinations are in considerable detail, the rates for the sugarcane areas being different from those for the sugar-beet areas, and the rates for the several sections of the two main types of producing areas varying with local conditions and customs.

### *Sugar-Beet Wages*

Determinations issued February 10, 1941, cover minimum rates for production, cultivation, or harvesting of the 1941 crop of sugar beets

[2] U. S. Department of Labor. Division of Labor Standards. Summary of Hours of Service Regulations for Operators of Motor Vehicles, by States. (Mimeographed.)

[3] A summary of the original determinations for beet-sugar wages was given in the Monthly Labor Review for March 1938 (p. 638). An article on Wages, Employment Conditions, and Welfare of Sugar-Beet Laborers, by Elizabeth S. Johnson of the U. S. Children's Bureau, appeared in the February 1938 issue of the Monthly Labor Review.

The 1941 wage determinations for sugar-beet labor are given in U. S. Department of Agriculture press release of February 10, 1941 for California and in a release of March 19, 1941, for other sugar-beet areas. The determinations for sugarcane labor are given in publications of the Agricultural Adjustment Administration, U. S. Department of Agriculture, as follows: For harvesting of sugarcane in the mainland sugarcane area, September 1, 1940, to June 30, 1941, in S. D. No. 93; for the production and cultivation of sugarcane in the mainland sugar area during the calendar year 1941, in S. D. No. 103; for the production, cultivation, or harvesting of sugarcane in Puerto Rico during the calendar year 1941, in S. D. No. 106; and for the production, cultivation, or harvesting of sugarcane in Hawaii during the calendar year 1941, in S. D. No. 104.

in California. In southern California the rate for blocking and thinning was set at either $6.50 per acre or, on a time basis, 35 cents per hour. The rate for first hoeing was either $1.50 per acre or 30 cents per hour. For the second and subsequent hoeings the rate was either $1 per acre or 30 cents per hour. For topping and loading, the time rate was 40 cents per hour, and on a piece-work basis the rate ranged from $1.93 per ton on production of less than 5 tons per acre to 64 cents per ton on production of 25 tons or more per acre. In northern California the rate for blocking and thinning was $7.50 per acre or 40 cents an hour. The rate for first hoeing was $2 per acre or 35 cents per hour, and for second and subsequent hoeings, $1.50 per acre or 35 cents per hour. The topping and loading rate was 45 cents per hour or $2.28 per ton of production below 5 tons per acre, ranging down to 74 cents per hour for production of 25 tons or more per acre.

Determinations announced on March 19, 1941, cover minimum rates in sugar-beet areas outside of California. In District 1, comprising Ohio, Michigan, Indiana, and Wisconsin, the rate for blocking, thinning, and hoeing was set at $11 per acre, or on a time basis, 40 cents per hour for blocking and thinning and 35 cents per hour for hoeing. For topping, the time rate was 45 cents per hour and the piece rate varied from $1.50 per ton on tonnage from acreage producing 3 tons or less to 80 cents on tonnage from acreage producing 16 tons or more.

In District 3 (Nebraska, Colorado, Kansas, southern Wyoming, and South Dakota), as well as District 1, either piece rates or time rates were permissible. The time rates ranged from 35 cents to 45 cents per hour. This was true also of District 7 (Utah, Idaho, and Oregon), except that the hourly rates were either 35 or 40 cents per hour. Both types of rates were specified also in District 8 (Washington) and the hourly rates ranged from 30 to 45 cents. For Districts 2 (Minnesota and Iowa), 4 (southern and eastern Montana and northern Wyoming), 5 (western Montana), and 6 (northern Montana) no time rates were specified, and the piece rates (either per ton or per acre) varied with local conditions and customs.

Special agreements between employers and workers could, under certain circumstances, supersede the minimum-wage determinations. An employer was required to furnish to the laborer without charge the perquisites customarily furnished by him, such as a house and a garden plot. A producer must not, through any subterfuge or device, reduce the wage rates below those officially determined.

### *Sugarcane Wages*

Minimum rates for the harvesting of sugarcane in the mainland sugarcane area between September 1, 1940, and June 30, 1941, were

somewhat different in the two sugarcane areas of Louisiana and Florida. For cutting, topping, and stripping the minimum rate for adult male workers in Louisiana was $1.50 per day of 9 hours and for adult female workers $1.20 per day of 9 hours. For a working day longer or shorter than 9 hours, the rate for adult male workers was 17 cents per hour and for adult female workers 13 cents per hour. Corresponding rates in Florida were $2 per day or 22.5 cents per hour for men and $1.60 per day or 18 cents per hour for women. The determinations included detailed time rates for loading and for cutting and loading combined and tonnage rates which varied for green sugarcane and burnt sugarcane.

The rates for certain harvesting operations were the same in both Louisiana and Florida. These operations included tractor driving and operating mechanical loading equipment. For specified occupations of this nature the rates for adult males ranged from $1.85 to $1.60 per day of 9 hours and from 21 cents to 18 cents per hour. Other harvesting operations not defined paid adult male workers $1.25 per day of 9 hours or 14 cents per hour and adult female workers $1 per day or 11 cents per hour.

For children between the ages of 14 and 16 years the rates per day of 8 hours (the maximum hours per day for this group) were three-fourths of the rates for adult male workers for a 9-hour day, with proportionate rates on an hourly basis for a working day shorter than 8 hours. The piece rates for children between the ages of 14 and 16 were the same as for adults, but piece workers as well as time workers in this age group were limited to 8 hours per day.

A separate determination of wages applied to workers employed in the production and cultivation as distinguished from the harvesting of sugarcane, this determination being for the calendar year. The minimum rate for tractor drivers in Louisiana in 1941 was set at $1.50 per day of 9 hours or 17 cents per hour for a working day longer or shorter than 9 hours. In Florida, the daily rate for tractor drivers in 1941 was $1.80 and the hourly rate, 20 cents. Rates for other types of work ranged downward from the rates for tractor drivers to a rate as low, in Louisiana, as $1 per day or 11 cents per hour for women. The corresponding rates in Florida was $1.30 per day and 14 cents per hour.

The wage determinations provided that employers shall furnish without charge the customary perquisites. The perquisites mentioned as customary are living quarters, garden, pasturage for livestock, and medical attention. An employer must not reduce wage rates by any subterfuge or device below the specified rates.

Sugarcane producers in Puerto Rico and Hawaii are also beneficiaries of quotas and public assistance under the Sugar Act of 1937 and are therefore subject also to wage determinations.

## WAGE ORDER FOR CONVERTED PAPER PRODUCTS INDUSTRY [1]

WAGE rates of 40, 38, and 36 cents must be paid to workers in the converted paper products industry who are subject to the terms of the Fair Labor Standards Act, according to an order of the Administrator. These minimum rates became effective June 30, 1941. Almost 50,000 workers are receiving increases in wage rates as a result of this action. More than one-third of the 200,000 employees in the industry are girls and women. Probably more than one-half of the persons to be given wage-rate increases are women, as they are the lowest paid workers in the industry.

In issuing the order the Administrator adopted the recommendations of the industry committee for the converted paper products industry. The terms of the order are as follows:

Workers on the following products—folding paper boxes; shipping containers; paper cups; bottle caps and hoods; waxed papers; waterproof paper; glazed and fancy papers; commercial envelopes; tags and labels; gummed papers; carbon paper; towels and toilet tissues; auto panels; photo mountings; die-cut specialties; sensitized papers; sandpaper; loose-leaf and blank books, tablets and pads, and index cards; stationery; playing cards; boo matches; all other products in which the principal basic component consists of synthetic materials; all other products made by the coating or impregnating of paper or paper board with any material—are to receive 40 cents an hour.

Workers engaged in the manufacture of shipping sacks; paper bags; miscellaneous rolls and wrapping specialties; products not elsewhere classified will receive 38 cents an hour.

Workers engaged in the manufacture of shipping sacks; paper bags; miscellaneous rolls and wrapping specialties; products not elsewhere classified will receive 38 cents an hour.

Workers engaged in the manufacture of set-up boxes; cans, tubes, cores, and related products; expanding envelopes and related products; plain rolls; lace and fluted paper products; twisted paper products will receive 36 cents an hour.

## WAGE ORDER FOR THE TEXTILE INDUSTRY [2]

EFFECTIVE June 30, 1941, the minimum wage for the textile industry under the terms of the Fair Labor Standards Act was increased from 32.5 cents to 37.5 cents hourly.[3] In making this ruling the Administrator acted upon the unanimous recommendation of the

[1] U. S. Department of Labor. Wage and Hour Division. Press releases Nos. 1433 and 1434, June 6, 1941.
[2] Idem. Press release No. 1443, June 9, 1941.
[3] For a statement on the earlier wage order see Monthly Labor Review for September 1940.

industry committee. It is estimated that this rise insures wage-rate increases to about 300,000 workers, which is the largest number of workers to benefit from a single industrial wage order since the enactment of the wage and hour law. Coverage of the industry is approximately 650,000 workers. As defined for the purposes of the wage order the textile industry includes the manufacture of cotton textiles; of certain finished products such as towels, sheets, and pillow cases; silk, rayon, linen, and jute textiles; and cordage and twine.

# *Wage and Hour Statistics*

## SALARIES, HOURS, AND WORKING CONDITIONS IN FIRE DEPARTMENTS OF THE UNITED STATES [1]

### *Summary*

SALARIES and hours on duty in fire departments are dependent on a number of factors. The size, location, and financial condition of a city, the proportion of supervisory officers and the number of different occupations and ranks, civil service and other legal requirements, and length of vacations with pay are all considerations in determining the salaries and hours on duty of fire-department employees. Cost of living in different localities and the items furnished to firemen without charge also affect the salary scales.

In this article, salaries are analyzed in terms of three of these factors—occupation or rank, geographic location, and size of city. Hours on duty per week are analyzed by size of city, and some information concerning other conditions of work is also presented.

On July 1, 1938, there were 66,878 persons employed on a full-time basis in fire departments of 363 cities with populations of 25,000 or more throughout the country. These employees were giving fire protection to more than 48 million people at an annual salary cost of about $150,000,000. Departments varied in size from that of New York City, with 10,489 employees, to those of several cities which maintained full-time forces of perhaps a dozen men and depended on volunteers or call men to complete their fire-fighting forces.

The 355 cities with complete full-time forces had 66,740 employees, or an average of 14 employees per 10,000 of population. The average annual salary of firemen was $2,248 and the per capita cost to the cities was $3.12. The exclusion of data for the New York City department from the comparison did not change the average number of employees per 10,000 of population, but reduced the other averages to $2,140 per employee and $2.92 per capita.

Average annual salaries decreased directly with the size of city. In New York City the average was $2,821 and in the other 12 cities with populations of 500,000 or more the average was $2,391. The cities with a population of 25,000 to 50,000, on the other hand, paid an average salary of $1,892.

[1] Prepared by Gerald M. Whitright. Carol P. Brainerd was technical adviser.

Comparison of average salaries on a geographic basis shows that the Pacific region, with an average annual salary of $2,376, was highest. At the other extreme, the East South Central and West South Central regions had averages of $1,765 and $1,739, respectively.

Sixty-nine percent of the firemen in the 362 cities other than New York City worked under a two-platoon system which required an average of 84 hours on duty per week. Variations of this same system which allowed additional time off accounted for 22 percent of the employees of these cities. The remaining 9 percent of the employees worked under a single-platoon system, a three-platoon system, were on continuous duty, or observed some other system of hours. At the time of this survey, New York City was in a period of transition, changing from a two-platoon system with an average workweek of 84 hours to a three-platoon system with an average workweek of 50.4 hours.

## *Scope of Study*

This article summarizes the findings of a comprehensive survey of salaries, hours, and working conditions in municipal fire departments conducted by the Division of Construction and Public Employment of the Bureau of Labor Statistics in cooperation with the Work Projects Administration (Official Project No. 107–2–00–51).

The present analysis is based on reports received from 363 cities with populations of 25,000 or more, according to the United States Census of Population for 1930. Because of the size of the New York City department, together with its unusually high salary scale, figures for this city are shown separately in the tables and chart. A discussion of systems of operation and hours on duty of municipal firemen appeared in the July 1940 issue of the Monthly Labor Review, and more detailed information on salaries and hours of duty in each of the 363 cities is being made available in a series of reports for each of the 9 geographic regions.[2]

## *Salaries in Relation to Occupation*

About three-fourths of all fire-department employees were privates, engineers, and drivers. These 3 occupational groups are interrelated; a number of cities reported as privates the men who performed the duties of drivers and engineers. Since privates constituted more than two-thirds of the total of 66,878 fire-department employees in the 363 reporting cities, this occupational group dominated the distribution of employees according to salary rates, shown in table 1.

Although salaries of privates on July 1, 1938, ranged from $720 to $3,000 per year, fewer than one-half of 1 percent received less than

[2] See U. S. Department of Labor, Bureau of Labor Statistics Bull. No. 684, vols. I through IX.

$100 per month. Over nine-tenths of all privates outside New York City had salaries of $1,550 to $2,550. The salary most frequently reported was between $2,150 and $2,250.

Variations in salaries of privates resulted not only from differences between cities, but also from the fact that some departments had 5 or more grades of privates. For example, the New York City department classified its privates in 5 grades; the rate of pay for those in the first grade was $3,000, for those in the second grade, $2,500, and for those in the lower grades, $2,000. First-grade privates constituted only 55 percent of all privates in New York City but 89 percent of the privates in the other 355 cities reporting privates.

Salary scales for the 2,633 engineers reported were similar to those for privates; the greatest concentration of salaries (about 13 percent) was in the $100 range beginning at $2,150. The corresponding salary range containing the largest proportion of drivers, however, was $500 lower than that for privates and engineers.

Department heads, of course, were the best paid of the fire-department personnel. The commissioner, who was in charge of the New York City department,[3] received $12,500 a year, while the next highest salary was $10,000 paid to the chief in Chicago. Over 21 percent of all chiefs had salaries of $4,050 or more in 1938. Salaries of the remainder varied between this amount and $1,560 received by the chief in Enid, Okla., with about one-tenth of the total receiving approximately $3,000 a year.

There were 1,452 officers subordinate to chiefs, classified in table 1 as assistant or deputy chiefs, assistant deputy chiefs, or battalion chiefs. Although in New York City salaries were higher and the occupational differences in salaries were generally greater than in other cities, the salaries of assistants to the commissioner in New York City typify the gradation of salary rates according to rank for cities reporting all 3 of these occupations. One deputy commissioner in New York City received $8,000 and 2 received $7,500; the 44 assistant deputy commissioners received $6,300 each; and the 135 battalion chiefs received $5,300 each.

The other ranking officers—captains and lieutenants—had duties more directly related to actual supervision of fire-fighting personnel. There were 5,769 captains reported by 336 cities. Outside of New York City, where 354 captains had salaries of $4,500, salaries of captains ranged from $1,050 to $4,050. Fifty-five percent had salaries between $1,850 and $2,550, and almost 13 percent had salaries below $1,850. The 931 lieutenants in New York City, with salaries of $3,900, constituted a fifth of the total of 4,621 lieutenants reported in 221 cities. Rates of pay for lieutenants in these cities fell in the

[3] Throughout this survey, commissioners were excluded (whether they received a nominal fee of $100 or a salary of $7,000 a year as in Boston), unless they were designated as department chiefs.

class intervals from $950 up to $3,450, with over 57 percent in the range between $1,850 and $2,550.

The remaining occupational classifications (not shown in table 1)—automobile mechanics, fire-alarm operators, electricians, and linemen—together constituted less than 3 percent of all employees. The proportion of employees reported in these occupations is not entirely indicative of the amount of such work done, because men from the fire-fighting force frequently were assigned work as mechanics or fire-alarm operators. Moreover, in some departments such work was done by private companies under contract. Salaries in these occupations were, in general, comparable with those of privates, except in the cases of a few technical experts who had higher salaries.

TABLE 1.—*Municipal Fire-Department Employees in the United States in Selected Occupations, by Salary, July 1, 1938*

| Salary class | All occupations[1] | | | | | | Chiefs | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All cities | New York City | City group[2] | | | | All cities | New York City | City group[2] | | | |
| | | | I | II | III | IV | | | I | II | III | IV |
| Cities reporting specified occupation | 363 | 1 | 12 | 78 | 97 | 175 | 357 | 1 | 12 | 77 | 96 | 171 |
| All salaries | 66,878 | 10,489 | 17,239 | 22,094 | 9,166 | 7,890 | 357 | 1 | 12 | 77 | 96 | 171 |
| Under $950 | 133 | [3] 4 | [4] 78 | [5] 9 | [6] 13 | [7] 29 | ------ | ------ | ------ | ------ | ------ | ------ |
| $950–$1,049 | 39 | 8 | ------- | 11 | 4 | 16 | ------ | ------ | ------ | ------ | ------ | ------ |
| $1,050–$1,149 | 37 | 7 | 4 | 3 | 9 | 14 | ------ | ------ | ------ | ------ | ------ | ------ |
| $1,150–$1,249 | 217 | 1 | ------- | 84 | 76 | 56 | ------ | ------ | ------ | ------ | ------ | ------ |
| $1,250–$1,349 | 392 | 1 | 1 | 57 | 146 | 187 | ------ | ------ | ------ | ------ | ------ | ------ |
| $1,350–$1,449 | 821 | 10 | 11 | 129 | 284 | 387 | ------ | ------ | ------ | ------ | ------ | ------ |
| $1,450–$1,549 | 1,055 | 14 | 26 | 352 | 282 | 381 | ------ | ------ | ------ | ------ | ------ | ------ |
| $1,550–$1,649 | 2,898 | 48 | 82 | 1,102 | 772 | 894 | 1 | ------ | ------ | ------ | ------ | 1 |
| $1,650–$1,749 | 4,198 | 44 | 203 | 1,531 | 1,204 | 1,216 | 2 | ------ | ------ | ------ | ------ | 2 |
| $1,750–$1,849 | 4,862 | 17 | 1,151 | 1,642 | 936 | 1,116 | 2 | ------ | ------ | ------ | ------ | 2 |
| $1,850–$1,949 | 5,764 | 20 | 177 | 4,028 | 775 | 764 | 4 | ------ | ------ | ------ | ------ | 4 |
| $1,950–$2,049 | 7,378 | 2,950 | 265 | 2,926 | 590 | 647 | 7 | ------ | ------ | ------ | 1 | 6 |
| $2,050–$2,149 | 4,474 | 19 | 1,263 | 1,921 | 882 | 389 | 8 | ------ | ------ | ------ | ------ | 8 |
| $2,150–$2,249 | 8,365 | 68 | 3,717 | 3,039 | 819 | 722 | 10 | ------ | ------ | ------ | ------ | 10 |
| $2,250–$2,349 | 2,946 | 75 | 1,067 | 1,062 | 541 | 201 | 8 | ------ | ------ | ------ | ------ | 8 |
| $2,350–$2,449 | 5,107 | 134 | 2,844 | 1,548 | 421 | 160 | 26 | ------ | ------ | ------ | 3 | 23 |
| $2,450–$2,549 | 4,997 | 822 | 2,101 | 1,083 | 679 | 312 | 17 | ------ | ------ | ------ | 5 | 12 |
| $2,550–$2,649 | 2,166 | 30 | 1,590 | 387 | 97 | 62 | 10 | ------ | ------ | ------ | 5 | 5 |
| $2,650–$2,749 | 1,093 | 5 | 640 | 208 | 147 | 93 | 21 | ------ | ------ | ------ | 3 | 18 |
| $2,750–$2,849 | 683 | 13 | 226 | 225 | 123 | 96 | 12 | ------ | ------ | 1 | 3 | 8 |
| $2,850–$2,949 | 824 | 29 | 633 | 42 | 101 | 19 | 12 | ------ | ------ | 1 | 4 | 7 |
| $2,950–$3,049 | 5,347 | 4,489 | 404 | 315 | 91 | 48 | 38 | ------ | ------ | 2 | 14 | 22 |
| $3,050–$3,149 | 145 | 20 | 24 | 49 | 28 | 24 | 7 | ------ | ------ | 2 | 3 | 2 |
| $3,150–$3,249 | 403 | 10 | 240 | 96 | 40 | 17 | 10 | ------ | ------ | 2 | 3 | 5 |
| $3,250–$3,349 | 75 | 19 | 16 | 17 | 18 | 5 | 15 | ------ | ------ | 2 | 8 | 5 |
| $3,350–$3,449 | 329 | 107 | 164 | 38 | 17 | 3 | 5 | ------ | ------ | 2 | 1 | 2 |
| $3,450–$3,549 | 121 | 38 | 34 | 26 | 14 | 9 | 12 | ------ | ------ | 2 | 7 | 3 |
| $3,550–$3,649 | 86 | 3 | 28 | 35 | 10 | 10 | 26 | ------ | ------ | 10 | 8 | 8 |
| $3,650–$3,749 | 15 | 2 | 1 | 9 | 1 | 2 | 4 | ------ | ------ | 2 | 1 | 1 |
| $3,750–$3,849 | 23 | 2 | 4 | 7 | 9 | 1 | 4 | ------ | ------ | 3 | ------ | 1 |
| $3,850–$3,949 | 937 | 931 | ------- | 4 | 1 | 1 | 3 | ------ | ------ | 2 | 1 | ------ |
| $3,950–$4,049 | 144 | 1 | 95 | 36 | 10 | 2 | 16 | ------ | ------ | 9 | 5 | 2 |
| $4,050 and over | 804 | [8] 548 | [9] 150 | [10] 73 | [11] 26 | [12] 7 | 77 | 1 | 12 | 37 | 21 | 6 |

See footnotes at end of table.

TABLE 1.—*Municipal Fire-Department Employees in the United States in Selected Occupations, by Salary, July 1, 1938*—Continued

| Salary class | Captains | | | | | | Privates | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All cities | New York City | City group [2] | | | | All cities | New York City | City group [2] | | | |
| | | | I | II | III | IV | | | I | II | III | IV |
| Cities reporting specified occupation | 336 | 1 | 12 | 78 | 92 | 153 | 356 | 1 | 12 | 78 | 97 | 168 |
| All salaries | 5,769 | 354 | 1,213 | 2,238 | 1,037 | 927 | 44,633 | 8,100 | 12,089 | 14,061 | 5,650 | 4,733 |
| Under $950 | | | | | | | 20 | | | 5 | | 15 |
| $950–$1,049 | | | | | | | 8 | | | | | 8 |
| $1,050–$1,149 | 3 | | | | | 3 | 13 | | | | 8 | 5 |
| $1,150–$1,249 | | | | | | | 146 | | | 63 | 65 | 18 |
| $1,250–$1,349 | 8 | | | | | 8 | 268 | | | 51 | 83 | 134 |
| $1,350–$1,449 | 46 | | | | 12 | 34 | 571 | | | 97 | 230 | 244 |
| $1,450–$1,549 | 44 | | | | 21 | 23 | 748 | | | 307 | 179 | 262 |
| $1,550–$1,649 | 112 | | | | 41 | 71 | 2,217 | | 44 | 1,021 | 517 | 635 |
| $1,650–$1,749 | 265 | | | | 113 | 152 | 2,803 | | 162 | 1,139 | 763 | 739 |
| $1,750–$1,849 | 225 | | | 69 | 73 | 83 | 3,460 | | 1,054 | 1,050 | 644 | 712 |
| $1,850–$1,949 | 550 | | | 272 | 135 | 143 | 3,844 | | 8 | 3,045 | 437 | 354 |
| $1,950–$2,049 | 486 | | | 277 | 117 | 92 | 5,544 | 2,910 | 103 | 1,761 | 343 | 427 |
| $2,050–$2,149 | 445 | | 96 | 214 | 50 | 85 | 3,183 | | 1,040 | 1,308 | 632 | 203 |
| $2,150–$2,249 | 440 | | | 354 | 43 | 43 | 6,625 | | 3,390 | 2,144 | 576 | 515 |
| $2,250–$2,349 | 281 | | | 166 | 45 | 70 | 1,598 | | 821 | 416 | 314 | 47 |
| $2,350–$2,449 | 228 | | | 151 | 44 | 33 | 3,929 | | 2,598 | 1,009 | 265 | 57 |
| $2,450–$2,549 | 546 | | 213 | 226 | 87 | 20 | 3,704 | 750 | 1,667 | 531 | 500 | 256 |
| $2,550–$2,649 | 193 | | | 143 | 34 | 16 | 1,209 | | 1,202 | 5 | 2 | |
| $2,650–$2,749 | 397 | | 266 | 67 | 58 | 6 | 36 | | | | | 36 |
| $2,750–$2,849 | 274 | | 75 | 110 | 87 | 2 | 66 | | | | | 66 |
| $2,850–$2,949 | 75 | | 51 | | 12 | 12 | 69 | | | 9 | 60 | |
| $2,950–$3,049 | 336 | | 220 | 90 | 16 | 10 | 4,572 | 4,440 | | 100 | 32 | |
| $3,050–$3,149 | 31 | | | 4 | 15 | 12 | | | | | | |
| $3,150–$3,249 | 309 | | 194 | 77 | 31 | 7 | | | | | | |
| $3,250–$3,349 | | | | | | | | | | | | |
| $3,350–$3,449 | 98 | | 98 | | | | | | | | | |
| $3,450–$3,549 | | | | | | | | | | | | |
| $3,550–$3,649 | 2 | | | | | 2 | | | | | | |
| $3,650–$3,749 | | | | | | | | | | | | |
| $3,750–$3,849 | | | | | | | | | | | | |
| $3,850–$3,949 | | | | | | | | | | | | |
| $3,950–$4,049 | 21 | | | 18 | 3 | | | | | | | |
| $4,050 and over | 354 | 354 | | | | | | | | | | |

[1] Includes 16,119 employees for whom salaries by occupations are not shown separately. For greater detail see Serial No. R. 1301.

[2] The 362 cities other than New York City have been divided into 4 population groups, on the basis of the United States Census of Population for 1930, as follows: Group I includes 12 cities with a population of 500,000 or over; group II, 78 cities of 100,000 and under 500,000; group III, 97 cities of 50,000 and under 100,000; and group IV, 175 cities of 25,000 and under 50,000.

[3] Each receives $840.

[4] Each receives $900.

[5] Includes employees whose salaries range from $552 to $936.

[6] Includes employees whose salaries range from $780 to $912.

[7] Includes employees whose salaries range from $720 to $900.

[8] Includes employees whose salaries range from $4,200 to $12,500.

[9] Includes employees whose salaries range from $4,140 to $10,000.

[10] Includes employees whose salaries range from $4,056 to $8,000.

[11] Includes employees whose salaries range from $4,200 to $6,000.

[12] Includes employees whose salaries range from $4,250 to $4,833.

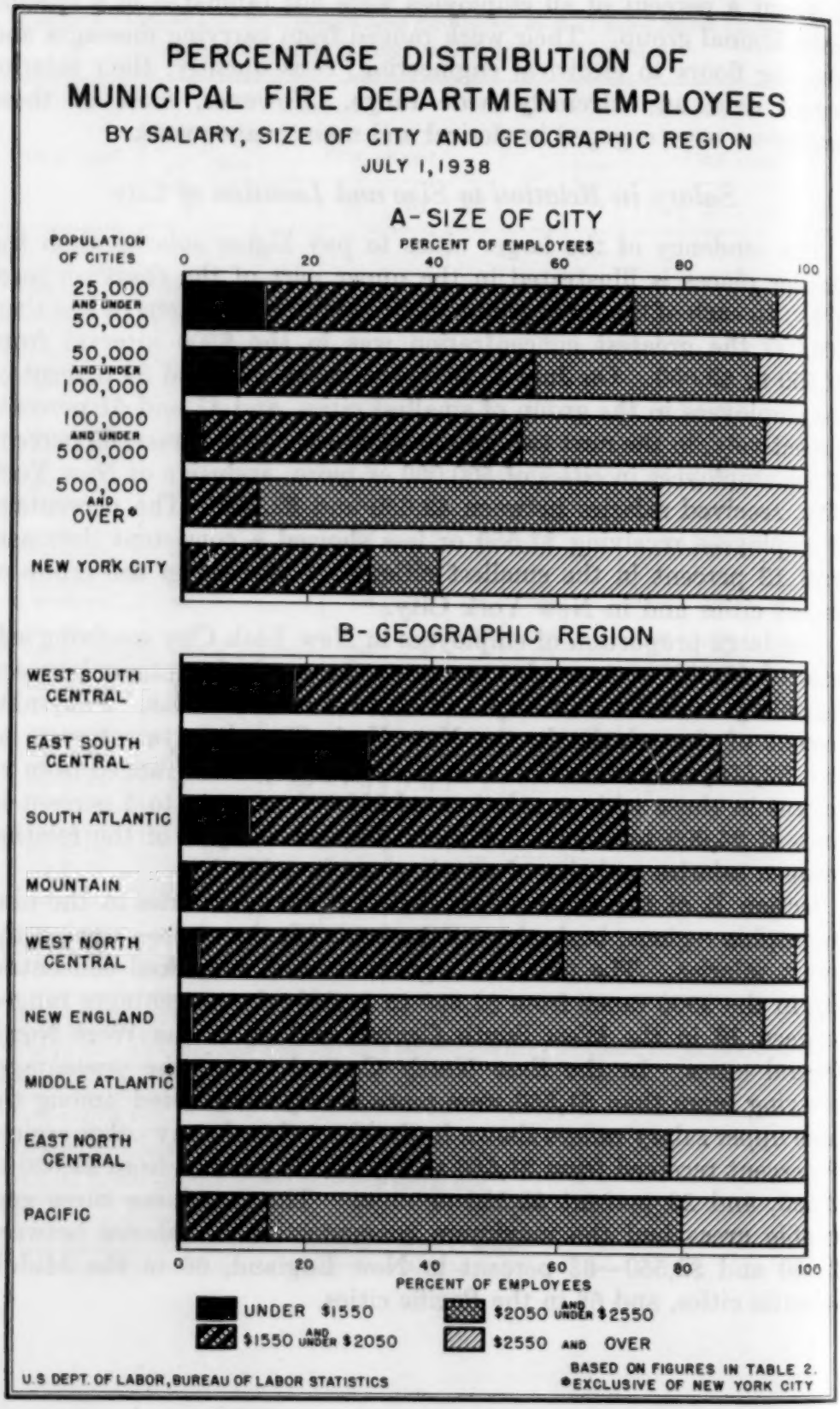
About 4 percent of all employees were not tabulated in a specific occupational group. Their work ranged from carrying messages and cleaning floors to electrical engineering; consequently, their salaries varied over an extremely wide range. However, most of these employees were engaged in clerical and maintenance work.

### *Salary in Relation to Size and Location of City*

The tendency of the larger cities to pay higher salaries than the smaller places is illustrated in the upper part of the chart on page 178. In each of the three groups of cities with populations of less than 500,000 the greatest concentration was in the $500 interval from $1,550 to $2,050. On July 1, 1938, this range included 59 percent of the employees in the group of smallest cities, and 47 and 51 percent, respectively, in the next two groups of cities. In contrast, 63 percent of the employees in cities of 500,000 or more, exclusive of New York City, received salaries between $2,050 and $2,550. The percentage of employees receiving $1,550 or less showed a consistent decrease, from 13 percent in the smallest cities to 1 percent in the group of largest cities and in New York City.

The large proportion of employees in New York City receiving salaries of $2,550 or more demonstrates the marked contrast between the salary scale for this city and those for other cities. Fifty-nine percent of the salaries in the New York City department were at least $2,550, whereas in the other cities the proportion ranged from 25 percent in those with populations of 500,000 or more to 5 percent in cities of 25,000 to 50,000. A more detailed analysis of the relation between salaries and size of city is given in table 2.

Section B of the chart shows distributions of salaries in the nine geographic regions, beginning at the top with the regions paying the lowest salaries. The first five regions showed a marked concentration in the $500 range from $1,550 to $2,050; the percentages ranged between 76 in the West South Central and 58 in the West North Central cities. In the East North Central region the percentages receiving more than $1,550 were more evenly distributed among the three upper salary ranges shown in the chart than in any other region; 39 percent received from $1,550 to $2,050, 38 percent from $2,050 to $2,550, and 22 percent $2,550 or more. The remaining three geographic areas had the maximum concentration of salaries between $2,050 and $2,550—63 percent in New England, 60 in the Middle Atlantic cities, and 66 in the Pacific cities.


PERCENTAGE DISTRIBUTION OF MUNICIPAL FIRE DEPARTMENT EMPLOYEES
BY SALARY, SIZE OF CITY AND GEOGRAPHIC REGION
JULY 1, 1938
A - SIZE OF CITY
POPULATION OF CITIES
PERCENT OF EMPLOYEES
0
20
40
60
80
100
25,000 AND UNDER 50,000
50,000 AND UNDER 100,000
100,000 AND UNDER 500,000
500,000 AND OVER*
NEW YORK CITY
B - GEOGRAPHIC REGION
WEST SOUTH CENTRAL
EAST SOUTH CENTRAL
SOUTH ATLANTIC
MOUNTAIN
WEST NORTH CENTRAL
NEW ENGLAND
MIDDLE ATLANTIC*
EAST NORTH CENTRAL
PACIFIC
PERCENT OF EMPLOYEES
UNDER $1550
$1550 AND UNDER $2050
$2050 AND UNDER $2550
$2550 AND OVER
U.S DEPT. OF LABOR, BUREAU OF LABOR STATISTICS
BASED ON FIGURES IN TABLE 2.
*EXCLUSIVE OF NEW YORK CITY

These interregional relationships are to some extent the result of the distribution of large cities among the 9 sections of the country. Only 2 of the 12 cities with populations of 500,000 or more in 1930 are situated in any of the 5 regions at the top of the chart—Baltimore in the South Atlantic division [4] and St. Louis in the West North Central division. The regions ranking highest in terms of salary scales in effect on July 1, 1938, contained the following cities of 500,000 or more: Boston in New England; Buffalo, Philadelphia, and Pittsburgh in the Middle Atlantic States; Chicago, Cleveland, Detroit, and Milwaukee in the East North Central States; and Los Angeles and San Francisco in the Pacific States.

Restricting the comparison to cities of 25,000 to 50,000 gives a better indication of the influence of more strictly regional factors on salaries. When cities of this size are arranged on the same basis as all cities in the chart, the regional ranking is as follows: West South Central, South Atlantic, East South Central, West North Central, East North Central, Pacific, Mountain, New England, and Middle Atlantic. Even in this comparison the effect of size of city is an indirect factor in determining salary rates, because salary scales in smaller cities within the metropolitan areas of large cities frequently are influenced by the salary rates in the large cities.

[4] Although Washington, D. C., had 663,091 inhabitants according to the 1940 census, its 1930 population of 486,869 caused it to be classed with cities of 100,000 and under 500,000.

TABLE 2.—*Municipal Fire-Department Employees in the United States, by Salary and Region, July 1, 1938*

| Salary class | All regions | | | | | | New England | | | | | Middle Atlantic | | | | | | East North Central | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All cities | New York City | City group [1] | | | | All cities | City group [1] | | | | All cities | New York City | City group [1] | | | | All cities | City group [1] | | | |
| | | | I | II | III | IV | | I | II | III | IV | | | I | II | III | IV | | I | II | III | IV |
| Cities reporting | 363 | 1 | 12 | 78 | 97 | 175 | 54 | 1 | 12 | 12 | 29 | 68 | 1 | 3 | 12 | 23 | 29 | 96 | 4 | 15 | 24 | 53 |
| All salaries | 66,878 | 10,489 | 17,239 | 22,094 | 9,166 | 7,890 | 7,944 | 1,543 | 3,226 | 1,470 | 1,705 | 21,259 | 10,489 | 3,778 | 3,385 | 2,303 | 1,304 | 14,342 | 6,514 | 3,782 | 1,864 | 2,182 |
| Under $950 | 133 | 4 | 78 | 9 | 13 | 29 | 2 | | | | 2 | 89 | 4 | 78 | 1 | 6 | | | | | | |
| $950–$1,049 | 39 | 8 | | 11 | 4 | 16 | 3 | | 2 | | 1 | 10 | 8 | | | 2 | | 8 | | 6 | | 2 |
| $1,050–$1,149 | 37 | 7 | 4 | 3 | 9 | 14 | 5 | 3 | 1 | 1 | | 7 | 7 | | | | | 1 | 1 | | | |
| $1,150–$1,249 | 217 | 1 | | 84 | 76 | 56 | 4 | | | 1 | 3 | 10 | 1 | | 6 | | 3 | 17 | | 8 | | 9 |
| $1,250–$1,349 | 392 | 1 | 1 | 57 | 146 | 187 | 5 | | 2 | | 3 | 21 | 1 | | 2 | 6 | 12 | 2 | | | 2 | |
| $1,350–$1,449 | 821 | 10 | 11 | 129 | 284 | 387 | 14 | 2 | 10 | 2 | | 20 | 10 | 4 | 4 | 2 | | 73 | 1 | 2 | 9 | 61 |
| $1,450–$1,549 | 1,055 | 14 | 26 | 352 | 282 | 381 | 82 | | 14 | 15 | 53 | 119 | 14 | 10 | 20 | 56 | 19 | 80 | 2 | 44 | 1 | 33 |
| $1,550–$1,649 | 2,898 | 48 | 82 | 1,102 | 772 | 894 | 136 | 19 | 47 | 13 | 57 | 215 | 48 | 7 | 19 | 82 | 59 | 508 | 2 | 49 | 73 | 384 |
| $1,650–$1,749 | 4,198 | 44 | 203 | 1,531 | 1,204 | 1,216 | 477 | 116 | 235 | 68 | 58 | 447 | 44 | 21 | 35 | 192 | 155 | 825 | 1 | 101 | 203 | 520 |
| $1,750–$1,849 | 4,862 | 17 | 1,151 | 1,642 | 936 | 1,116 | 442 | 1 | 89 | 147 | 205 | 719 | 17 | 159 | 71 | 217 | 255 | 687 | 19 | 25 | 168 | 475 |
| $1,850–$1,949 | 5,764 | 20 | 177 | 4,028 | 775 | 764 | 590 | 54 | 163 | 189 | 184 | 517 | 20 | 12 | 261 | 152 | 72 | 2,173 | 16 | 1,657 | 246 | 254 |
| $1,950–$2,049 | 7,378 | 2,950 | 265 | 2,926 | 590 | 647 | 577 | 23 | 98 | 145 | 311 | 3,998 | 2,950 | 55 | 752 | 201 | 40 | 1,348 | 33 | 1,049 | 135 | 131 |
| $2,050–$2,149 | 4,474 | 19 | 1,263 | 1,921 | 882 | 389 | 2,132 | 907 | 776 | 251 | 198 | 681 | 19 | 48 | 446 | 150 | 18 | 755 | 125 | 126 | 381 | 123 |
| $2,150–$2,249 | 8,365 | 68 | 3,717 | 3,039 | 819 | 722 | 1,941 | 123 | 1,039 | 354 | 425 | 2,684 | 68 | 2,266 | 138 | 140 | 72 | 1,124 | 508 | 373 | 172 | 71 |
| $2,250–$2,349 | 2,946 | 75 | 1,067 | 1,062 | 541 | 201 | 420 | 27 | 220 | 112 | 61 | 1,279 | 75 | 644 | 343 | 160 | 57 | 468 | 164 | 176 | 96 | 32 |
| $2,350–$2,449 | 5,107 | 134 | 2,844 | 1,548 | 421 | 160 | 133 | 2 | 57 | 45 | 29 | 657 | 134 | 98 | 197 | 177 | 51 | 1,115 | 1,006 | 18 | 51 | 40 |
| $2,450–$2,549 | 4,997 | 822 | 2,101 | 1,083 | 679 | 312 | 410 | 133 | 199 | 58 | 20 | 2,216 | 822 | 93 | 639 | 391 | 271 | 1,956 | 1,721 | 60 | 167 | 8 |
| $2,550–$2,649 | 2,166 | 30 | 1,590 | 387 | 97 | 62 | 101 | 2 | 36 | 20 | 43 | 99 | 30 | 2 | 50 | 11 | 6 | 1,459 | 1,389 | 17 | 42 | 11 |
| $2,650–$2,749 | 1,093 | 5 | 640 | 208 | 147 | 93 | 140 | 85 | 35 | 10 | 10 | 332 | 5 | 180 | 51 | 41 | 55 | 157 | 92 | 12 | 41 | 12 |
| $2,750–$2,849 | 683 | 13 | 226 | 225 | 123 | 96 | 110 | | 88 | 14 | 8 | 203 | 13 | 1 | 22 | 91 | 76 | 171 | 149 | 5 | 12 | 5 |
| $2,850–$2,949 | 824 | 29 | 633 | 42 | 101 | 19 | 18 | | 8 | 1 | 9 | 184 | 29 | 62 | 14 | 74 | 5 | 597 | 570 | 5 | 21 | 1 |
| $2,950–$3,049 | 5,347 | 4,489 | 404 | 315 | 91 | 48 | 70 | 5 | 47 | 9 | 9 | 4,700 | 4,489 | | 132 | 54 | 25 | 182 | 148 | 19 | 10 | 5 |
| $3,050–$3,149 | 145 | 20 | 24 | 49 | 28 | 24 | 21 | | 15 | 2 | 4 | 72 | 20 | | 16 | 16 | 20 | 13 | 6 | 2 | 5 | |
| $3,150–$3,249 | 403 | 10 | 240 | 96 | 40 | 17 | 6 | | 1 | 1 | 4 | 151 | 10 | 18 | 83 | 29 | 11 | 232 | 222 | | 8 | 2 |
| $3,250–$3,349 | 75 | 19 | 16 | 17 | 18 | 5 | 12 | 1 | 9 | 2 | | 43 | 19 | 11 | 3 | 8 | 2 | 8 | 1 | 1 | 5 | 1 |
| $3,350–$3,449 | 329 | 107 | 164 | 38 | 17 | 3 | 11 | | 10 | | 1 | 147 | 107 | | 25 | 13 | 2 | 153 | 153 | | | |
| $3,450–$3,549 | 121 | 38 | 34 | 26 | 14 | 9 | 15 | | 9 | 3 | 3 | 54 | 38 | | 2 | 8 | 6 | 47 | 34 | 11 | 2 | |
| $3,550–$3,649 | 86 | 3 | 28 | 35 | 10 | 10 | 6 | | 3 | 2 | 1 | 14 | 3 | 1 | 6 | 1 | 3 | 10 | | 5 | 4 | 1 |
| $3,650–$3,749 | 15 | 2 | 1 | 9 | 1 | 2 | 1 | | 1 | | | 6 | 2 | | 2 | | 2 | 3 | 1 | 2 | | |
| $3,750–$3,849 | 23 | 2 | 4 | 7 | 9 | 1 | 2 | | 2 | | | 10 | 2 | 2 | 1 | 5 | | 8 | 2 | 2 | 3 | 1 |
| $3,850–$3,949 | 937 | 931 | | 4 | 1 | 1 | | | | | | 932 | 931 | | | | 1 | 1 | | 1 | | |
| $3,950–$4,049 | 144 | 1 | 95 | 36 | 10 | 2 | 35 | 30 | 1 | 3 | 1 | 33 | 1 | | 26 | 5 | 1 | 65 | 59 | 4 | 2 | |
| $4,050 and over | 804 | 548 | 150 | 73 | 26 | 7 | 23 | 10 | 9 | 2 | 2 | 580 | 548 | 6 | 18 | 13 | 5 | 90 | 89 | 2 | 5 | |

| Salary class | West North Central | | | | | South Atlantic | | | | | East South Central | | | | | West South Central | | | | | Mountain | | | | | Pacific | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All cities | City group [1] | | | | All cities | City group [1] | | | | All cities | City group [1] | | | | All cities | City group [1] | | | | All cities | City group [1] | | | | All cities | City group [1] | | | |
| | | I | II | III | IV | | I | II | III | IV | | I | II | III | IV | | I | II | III | IV | | I | II | III | IV | | I | II | III | IV |
| Cities reporting | 96 | 4 | 15 | 24 | 53 | 68 | 1 | 3 | 12 | 23 | 29 | 29 | 1 | 2 | 4 | 9 | 13 | 1 | 2 | 3 | 7 | 30 | 1 | 3 | 8 | 18 | 1 | 3 | 5 | 9 |
| All salaries | 5,182 | 1,900 | 1,282 | 1,000 | 1,000 | 5,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| Under $950 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $950–$1,049 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $1,050–$1,149 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $1,150–$1,249 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $1,250–$1,349 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $1,350–$1,449 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $1,450–$1,549 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $1,550–$1,649 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $1,650–$1,749 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $1,750–$1,849 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $1,850–$1,949 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $1,950–$2,049 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $2,050–$2,149 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $2,150–$2,249 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $2,250–$2,349 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $2,350–$2,449 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $2,450–$2,549 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $2,550–$2,649 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $2,650–$2,749 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $2,750–$2,849 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $2,850–$2,949 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $2,950–$3,049 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $3,050–$3,149 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $3,150–$3,249 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $3,250–$3,349 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $3,350–$3,449 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $3,450–$3,549 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $3,550–$3,649 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $3,650–$3,749 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $3,750–$3,849 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $3,850–$3,949 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $3,950–$4,049 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| $4,050 and over | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Salary class | West North Central | | | | | South Atlantic | | | | | East South Central | | | | West South Central | | | | Mountain | | | | Pacific | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All cities | City group [1] | | | | All cities | City group [1] | | | | All cities [2] | City group [1] | | | All cities [2] | City group [1] | | | All cities [2] | City group [1] | | | All cities | City group [1] | | | |
| | | I | II | III | IV | | I | II | III | IV | | II | III | IV | | II | III | IV | | II | III | IV | | I | II | III | IV |
| Cities reporting | 27 | 1 | 8 | 7 | 11 | 39 | 1 | 8 | 14 | 16 | 16 | 6 | 3 | 7 | 26 | 8 | 7 | 11 | 10 | 2 | 1 | 7 | 27 | 2 | 7 | 6 | 12 |
| All salaries | 4,265 | 964 | 2,306 | 611 | 384 | 5,818 | 1,468 | 2,435 | 1,238 | 677 | 2,144 | 1,542 | 288 | 314 | 3,626 | 2,612 | 593 | 421 | 904 | 524 | 64 | 316 | 6,576 | 2,972 | 2,282 | 735 | 587 |
| Under $950 | | | | | | 4 | | | 1 | 3 | 3 | 2 | 1 | | 35 | 6 | 5 | 24 | | | | | | | | | |
| $950–$1,049 | 2 | | 2 | | | 1 | | | | 1 | 2 | 1 | 1 | | 13 | | 1 | 12 | | | | | | | | | |
| $1,050–$1,149 | | | | | | 5 | | | 4 | 1 | 7 | 2 | 4 | 1 | 12 | | | 12 | | | | | | | | | |
| $1,150–$1,249 | 6 | | 3 | | 3 | 38 | | 2 | 27 | 9 | 56 | | 41 | 15 | 79 | 64 | 1 | 14 | 1 | | 1 | | 6 | | 1 | 5 | |
| $1,250–$1,349 | 11 | 1 | | 9 | 1 | 30 | | 12 | 16 | 2 | 159 | 15 | 106 | 38 | 161 | 26 | 7 | 128 | 3 | | | 3 | | | | | |
| $1,350–$1,449 | 76 | 2 | 36 | | 38 | 277 | | 11 | 154 | 112 | 159 | 66 | 24 | 69 | 184 | | 92 | 92 | 8 | | | 8 | 10 | 2 | | 1 | 7 |
| $1,450–$1,549 | 52 | 3 | 5 | 8 | 36 | 293 | 10 | 27 | 105 | 151 | 254 | 223 | 23 | 8 | 155 | 8 | 71 | 76 | 2 | | | 2 | 18 | 1 | 11 | 3 | 3 |
| $1,550–$1,649 | 556 | 19 | 267 | 201 | 69 | 684 | 35 | 248 | 248 | 153 | 227 | 129 | 3 | 95 | 514 | 343 | 152 | 19 | 9 | | | 9 | 49 | | | | 49 |
| $1,650–$1,749 | 640 | 4 | 401 | 109 | 126 | 722 | 53 | 47 | 468 | 154 | 136 | 91 | 1 | 44 | 776 | 599 | 157 | 20 | 69 | 19 | 4 | 46 | 106 | 8 | 3 | 2 | 93 |
| $1,750–$1,849 | 276 | 1 | 44 | 172 | 59 | 1,462 | 962 | 368 | 98 | 34 | 251 | 185 | 44 | 22 | 787 | 738 | 44 | 5 | 74 | 14 | 39 | 21 | 164 | 9 | 108 | 7 | 40 |
| $1,850–$1,949 | 709 | | 626 | 56 | 27 | 403 | 90 | 231 | 66 | 16 | 423 | 393 | 17 | 13 | 437 | 410 | 23 | 4 | 353 | 249 | 15 | 89 | 159 | 5 | 38 | 11 | 105 |
| $1,950–$2,049 | 279 | 12 | 228 | 29 | 10 | 239 | 96 | 96 | 22 | 25 | 163 | 152 | 10 | 1 | 257 | 246 | 9 | 2 | 138 | 125 | | 13 | 379 | 46 | 180 | 39 | 114 |
| $2,050–$2,149 | 140 | 3 | 127 | 4 | 6 | 429 | 179 | 243 | 4 | 3 | 135 | 131 | 3 | 1 | 26 | 14 | 11 | 1 | 13 | 8 | 1 | 4 | 163 | 1 | 50 | 77 | 35 |
| $2,150–$2,249 | 1,051 | 680 | 360 | 8 | 3 | 144 | | 142 | 1 | 1 | 43 | 43 | | | 42 | 39 | 1 | 2 | 151 | 78 | 3 | 70 | 1,185 | 140 | 827 | 140 | 78 |
| $2,250–$2,349 | 174 | 137 | 36 | | 1 | 96 | | 93 | 2 | 1 | 72 | 64 | 6 | 2 | 30 | 25 | 5 | | 27 | 10 | | 17 | 380 | 95 | 95 | 160 | 30 |
| $2,350–$2,449 | 103 | | 97 | 5 | 1 | 684 | 8 | 668 | 5 | 3 | 15 | 13 | | 2 | 36 | 28 | 3 | 5 | 21 | | | 21 | 2,343 | 1,730 | 470 | 135 | 8 |
| $2,450–$2,549 | 87 | 79 | 5 | 3 | | 44 | | 38 | 4 | 2 | 5 | 4 | | 1 | 14 | 13 | 1 | | 1 | | | 1 | 264 | 75 | 125 | 55 | 9 |
| $2,550–$2,649 | 7 | 3 | 4 | | | 64 | 1 | 62 | 1 | | 1 | 1 | | | 9 | 8 | | 1 | 6 | 5 | 1 | | 420 | 193 | 204 | 22 | 1 |
| $2,650–$2,749 | 7 | | 3 | 2 | 2 | 17 | | 12 | 2 | 3 | 4 | 2 | 2 | | 18 | 14 | 2 | 2 | 16 | 12 | | 4 | 402 | 283 | 67 | 47 | 5 |
| $2,750–$2,849 | 20 | | 18 | | 2 | 51 | | 49 | 1 | 1 | 10 | 10 | | | 2 | 1 | | 1 | 2 | 1 | | 1 | 114 | 76 | 31 | 5 | 2 |
| $2,850–$2,949 | 13 | 1 | 9 | 3 | | 1 | | 1 | | | 4 | 2 | | 2 | 5 | 3 | 2 | | 2 | | | 2 | | | | | |
| $2,950–$3,049 | 19 | 1 | 16 | 2 | | 84 | 27 | 52 | 4 | 1 | 4 | 2 | 2 | | 5 | 4 | 1 | | 5 | 1 | | 4 | 278 | 223 | 42 | 9 | 4 |
| $3,050–$3,149 | 4 | 4 | | | | 5 | | 4 | 1 | | 4 | 4 | | | 8 | 7 | 1 | | | | | | 18 | 14 | 1 | 3 | |
| $3,150–$3,249 | 7 | | 7 | | | 1 | | 1 | | | 1 | 1 | | | 2 | 2 | | | | | | | 3 | | 1 | 2 | |
| $3,250–$3,349 | 1 | | 1 | | | 6 | 2 | | 3 | 1 | | | | | 2 | 2 | | | | | | | 3 | 1 | 1 | | 1 |
| $3,350–$3,449 | 12 | 11 | 1 | | | 1 | | | 1 | | | | | | | | | | | | | | 5 | | 2 | 3 | |
| $3,450–$3,549 | | | | | | 1 | | 1 | | | 1 | 1 | | | 3 | 2 | 1 | | | | | | | | | | |
| $3,550–$3,649 | 3 | | 3 | | | 2 | | 2 | | | 1 | 1 | | | 3 | 1 | 1 | 1 | 2 | 1 | | 1 | 45 | 27 | 13 | 2 | 3 |
| $3,650–$3,749 | 2 | | 2 | | | | | | | | | | | | 2 | 1 | 1 | | | | | | 1 | | 1 | | |
| $3,750–$3,849 | | | | | | | | | | | | | | | 1 | 1 | | | | | | | 2 | | 1 | 1 | |
| $3,850–$3,949 | 1 | | 1 | | | 1 | | 1 | | | | | | | 1 | | 1 | | | | | | 1 | | 1 | | |
| $3,950–$4,049 | 5 | 2 | 3 | | | 5 | 4 | 1 | | | | | | | 1 | 1 | | | | | | | | | | | |
| $4,050 ad over | 2 | 1 | 1 | | | 24 | 1 | 23 | | | 4 | 4 | | | 6 | 6 | | | 1 | 1 | | | 58 | 43 | 9 | 6 | |

[1] See footnote 1, table 1, for size of cities in each city group.

[2] No cities of group I in this region.

### *Hours of Work*

The length of the average workweek of fire-department employees in the 362 cities other than New York City varied from 46 to 168 hours, depending upon the system of hours under which individual employees worked. The 6 systems of operation shown in table 3 were described in an article entitled, "Hours of Work of Municipal Firemen in the United States," which appeared in the Monthly Labor Review for July 1940.

The platoon system in general is an arrangement whereby the employees of fire departments are divided into groups and assigned hours on duty in such a way as to provide adequate fire protection to the city at all times without requiring the members of the department to be on duty continuously. There are numerous variations of the platoon system, and there has been a steady, though gradual, trend toward the elimination of all 24-hour tours of duty.

Practically 94 percent of all fire-department employees in the 362 cities worked under some variation of the platoon systems shown in table 3. In general it may be said that the fire-fighting forces work in platoons. The employees outside the platoon systems were on continuous duty or worked some other system of hours. The group on continuous duty was composed for the most part of chiefs and other high-ranking officers or special employees (such as those engaged in fire-alarm work) who are on call at all times. The remaining employees were mainly clerical or maintenance workers with hours approximating those of municipal employees in other departments.

The most common workweek for firemen in 1938 was 84 hours, and over 69 percent of all employees worked under the regular two-platoon system which resulted in this working time. An additional 22 percent worked under some variation of the two-platoon system which afforded extra time off; these variations resulted in workweeks of 67 to 81 hours.

The length of the workweek for firemen tended to vary with the size of the city. For example, 82 percent of the employees in the group of smallest cities worked under the regular two-platoon system with an average of 84 hours per week, in contrast to only 51 percent in the largest cities; the proportion of these working under two-platoon systems with additional time off was only 6 percent in cities of 25,000 to 50,000 and almost 44 percent in cities of 500,000 or more.

Furthermore, the proportion of all employees on continuous duty or working under some variation of the single-platoon system (which resulted in averages of 108 to 144 hours per week) increased from 0.3 percent in all cities with populations of 500,000 or more, except New York City, to 6.8 percent in cities of 25,000 to 50,000. To some extent, this is merely a reflection of the fact that supervisory officers, who are most commonly on continuous duty, form a greater proportion

of total employees in small departments than in large ones. On the other hand, the size of the department in some of the smaller cities did not permit sufficient flexibility in organization for the operation of the more complicated platoon systems.

When this survey was made, the three-platoon system had been established in only three cities—Toledo, Ohio, and Great Falls and Butte, Mont. New York City was in the process of adopting the three-platoon system as a result of a law passed in 1937. Because this department was in a transitional period, no data on hours on duty are presented for New York City in table 3.

TABLE 3.—*Municipal Fire-Department Employees in the United States, by Average Hours on Duty Per Week, July 1, 1938*

[Exclusive of New York City]

| System of operation | Average hours on duty per week | Number of employees | | | | | Percent of employees | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | All cities | City group [1] | | | | All cities | City group [1] | | | |
| | | | I | II | III | IV | | I | II | III | IV |
| All systems | ------ | 56,389 | 17,239 | 22,094 | 9,166 | 7,890 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Continuous duty | 168 | 317 | 25 | 96 | 77 | 119 | .6 | .1 | .4 | .8 | 1.5 |
| Single platoon | ------ | 854 | 36 | 16 | 383 | 419 | 1.5 | .2 | .1 | 4.2 | 5.3 |
| On 2 days, off 1 day | 112 | 389 | 12 | 4 | 201 | 172 | .7 | ----- | [2] | 2.2 | 2.2 |
| On 3 days, off 1 day | 126 | 230 | 11 | ----- | 121 | 98 | .4 | ----- | ----- | 1.3 | 1.2 |
| On 4 days, off 1 day | 134 | 142 | ----- | 5 | 46 | 91 | .2 | ----- | [2] | .5 | 1.2 |
| On 4.5 days, off 2.5 days | 108 | 2 | ----- | ----- | ----- | 2 | [2] | ----- | ----- | ----- | [2] |
| On 5 days, off 1 day | 140 | 30 | ----- | ----- | ----- | 30 | .1 | ----- | ----- | ----- | .4 |
| On 5 days, off 2 days | 120 | 11 | 11 | ----- | ----- | ----- | [2] | .2 | ----- | ----- | ----- |
| On 5.5 days, off 1.5 days | 132 | 1 | ----- | 1 | ----- | ----- | [2] | ----- | [2] | ----- | ----- |
| On 6 days, off 1 day | 144 | 49 | 2 | 6 | 15 | 26 | .1 | [2] | .1 | .2 | .3 |
| 2-platoon, regular | ------ | 39,037 | 8,750 | 16,719 | 7,130 | 6,438 | 69.2 | 50.8 | 75.7 | 77.8 | 81.6 |
| On 24 hours, off 24 hours | 84 | 21,396 | 5,955 | 7,735 | 4,101 | 3,605 | 37.9 | 34.6 | 35.0 | 44.7 | 45.7 |
| Day and night platoon [3] | 84 | 17,641 | 2,795 | 8,984 | 3,029 | 2,833 | 31.3 | 16.2 | 40.7 | 33.1 | 35.9 |
| 2-platoon—with additional time off duty | ------ | 12,519 | 7,503 | 3,489 | 1,047 | 480 | 22.2 | 43.5 | 15.8 | 11.4 | 6.1 |
| Day and night platoon [4]—off 1 day per week | 72 | 5,473 | 3,520 | 1,180 | 522 | 251 | 9.7 | 20.4 | 5.3 | 5.7 | 3.2 |
| On 24 hours, off 24 hours [4]—off 0.1 day per week | 81 | 657 | ----- | 467 | 190 | ----- | 1.2 | ----- | 2.1 | 2.1 | ----- |
| On 24 hours, off 24 hours [4]—off 0.2 day per week | 78 | 172 | ----- | ----- | 80 | 92 | .3 | ----- | ----- | .8 | 1.2 |
| On 24 hours, off 24 hours [4]—off 0.4 day per week | 74 | 3,064 | 2,873 | 177 | ----- | 14 | 5.4 | 16.7 | .8 | ----- | .2 |
| On 24 hours, off 24 hours [4]—off 0.5 day per week | 72 | 1,622 | ----- | 1,499 | ----- | 123 | 2.9 | ----- | 6.8 | ----- | 1.5 |
| Group system [5]—off 1 day per week | 72 | 1,174 | 1,110 | ----- | 64 | ----- | 2.1 | 6.4 | ----- | .7 | ----- |
| Group system [5]—off 1.2 day per week | 70 | 166 | ----- | 166 | ----- | ----- | .3 | ----- | .8 | ----- | ----- |
| Group system [5]—off 1.4 day per week | 67 | 191 | ----- | ----- | 191 | ----- | .3 | ----- | ----- | 2.1 | ----- |
| 3-platoon | ------ | 466 | ----- | 383 | ----- | 83 | .8 | ----- | 1.7 | ----- | 1.1 |
| 8-hour tours, off every 8th day | 49 | 83 | ----- | ----- | ----- | 83 | .1 | ----- | ----- | ----- | 1.1 |
| On 1 day, off 2 days | 56 | 383 | ----- | 383 | ----- | ----- | .7 | ----- | 1.7 | ----- | ----- |
| Others | 46 | 3,196 | 925 | 1,391 | 529 | 351 | 5.7 | 5.4 | 6.3 | 5.8 | 4.4 |

[1] See footnote 1, table 1, for size of cities in each city group.
[2] Less than a tenth of 1 percent.
[3] Day and night platoons are shifted from every 3d day to every 15th day, depending on the city.
[4] The days off in this system are expressed in terms of a full 24-hour day, as contrasted with an average 12-hour day in other systems having additional time off.
[5] Groups of day and night platoons shift in such a manner that no fireman has to be on duty longer than a normal day or night tour.

### *Fire Protection Related to Concentration of Population*

The cost of fire protection per inhabitant depends upon many factors. In any particular city, the primary factors are, of course, the average salary rate and the number of employees per 10,000 of population. The latter depends, in turn, upon a variety of considerations, among which are the nature of local fire hazards, the amount of equipment, and the average hours on duty of the firemen.

As a group, cities of 500,000 or more, except New York City, had fewer fire-department employees per 10,000 of population than any other population group shown in table 4.[5] There was wide variation among individual cities composing this group. For example, the Chicago department had only 9 employees per 10,000 inhabitants in contrast to 20 employees per 10,000 in Boston. New York City had 15 employees per 10,000 inhabitants. This department, as has already been mentioned, was in the process of enlarging its fire-fighting force to comply with the law establishing the three-platoon system.

Although average salaries per fire-department employee decreased consistently from the groups of largest to smallest cities, the per capita salary costs did not follow the same pattern. For example, the 12 largest cities, exclusive of New York City, were able to furnish fire protection at a per capita salary cost of $2.97, as contrasted with a cost of $3.05 in cities of 100,000 to 500,000, despite the fact that the average annual salary in the largest cities was more than $300 greater than that in the next size group.

On a regional basis, New England had the highest per capita cost and the largest number of fire-department employees per 10,000 of population. The annual salary expenditure per capita for the region was $3.83, and there were 18 employees per 10,000 inhabitants. In this region, the large number of fire-department employees in relation to the population was due not to short hours but rather to conditions in Boston and a few other large New England cities. Boston, for example, had 20 fire-department employees per 10,000 of population. The relatively large size of this department resulted primarily from extra hazards associated with large numbers of old buildings, narrow and irregular streets, and the fire risks typical of many large seaports.

The next highest per capita salary cost of $3.76 in the Pacific region was due to a large force working relatively short hours and receiving high salaries. This region had the highest average salary rate, $2,376, as compared with the low of $1,739 in the West South Central region.

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[5] Ratios shown in table 4 are on the basis of the 1930 population figures and are presented to show relative comparisons rather than actual figures. The 1940 census indicates that there were population increases of varying degrees for each group of cities covered by the table. However, preliminary estimates of ratios of employees per 10,000 and salary costs per capita on the basis of 1940 population figures show that although the population increases lower these ratios, they do not change appreciably the relative positions of the groups shown in table 4.

The combination of long workweeks, relatively few employees per 10,000 inhabitants, and low salary rates resulted in the low per capita costs of $2.30 in the East South Central and $2.43 in the West South Central regions.

In the East North Central region, where salaries were relatively high and hours were shorter than in most other regions, the per capita cost was only $2.56. The primary reason for the low per capita cost in this region was the low number of employees per 10,000 population. For the region as a whole this ratio was 11 per 10,000, and in Chicago it was only 9.

TABLE 4.—*Municipal Fire-Department Employees and Annual Salaries in 355 Cities*[1], *in Relation to Population, July 1, 1938*

| Item | Population (census of 1930) | Number of employees | | Annual salaries | | |
|---|---|---|---|---|---|---|
| | | Total | Per 10,000 of population | Total | Per capita | Per employee |
| *City group* | | | | | | |
| All cities [2] | 41,164,770 | 56,251 | 14 | $120,404,673 | $2.92 | $2,140 |
| Group I: 500,000 and over [2] | 13,898,096 | 17,239 | 12 | 41,225,521 | 2.97 | 2,391 |
| Group II: 100,000 to 500,000 | 15,069,308 | 22,094 | 15 | 46,022,508 | 3.05 | 2,083 |
| Group III: 50,000 to 100,000 | 6,302,683 | 9,116 | 14 | 18,398,804 | 2.92 | 2,018 |
| Group IV: 25,000 to 50,000 | 5,894,683 | 7,802 | 13 | 14,757,840 | 2.50 | 1,892 |
| *Largest cities* | | | | | | |
| New York City | 6,930,446 | 10,489 | 15 | 29,594,614 | 4.27 | 2,821 |
| Chicago | 3,376,438 | 2,999 | 9 | 8,028,998 | 2.38 | 2,677 |
| Philadelphia | 1,950,961 | 2,009 | 10 | 4,276,055 | 2.19 | 2,128 |
| Detroit | 1,568,662 | 1,673 | 11 | 4,619,256 | 2.94 | 2,761 |
| Los Angeles | 1,238,048 | 1,782 | 14 | 4,494,873 | 3.63 | 2,522 |
| *Region* | | | | | | |
| All regions [2] | 41,164,770 | 56,251 | 14 | 120,404,673 | 2.92 | 2,140 |
| New England | 4,431,657 | 7,944 | 18 | 16,995,713 | 3.83 | 2,139 |
| Middle Atlantic [2] | 7,654,543 | 10,646 | 14 | 23,925,280 | 3.13 | 2,247 |
| East North Central | 12,736,511 | 14,342 | 11 | 32,555,838 | 2.56 | 2,270 |
| West North Central | 3,482,012 | 4,265 | 12 | 8,326,695 | 2.39 | 1,952 |
| South Atlantic | 3,737,065 | 5,804 | 16 | 11,082,610 | 2.97 | 1,909 |
| East South Central | 1,642,976 | 2,144 | 13 | 3,784,406 | 2.30 | 1,765 |
| West South Central | 2,597,222 | 3,626 | 14 | 6,307,378 | 2.43 | 1,739 |
| Mountain | 727,281 | 904 | 12 | 1,803,519 | 2.48 | 1,995 |
| Pacific | 4,155,503 | 6,576 | 16 | 15,623,234 | 3.76 | 2,376 |

[1] Populations, employees, and salaries for 8 cities having small full-time forces supplemented by volunteers or call men instead of privates have been excluded. These cities are Aliquippa, Pa., Chester, Pa., Hagerstown, Md., Hazleton, Pa., Nanticoke, Pa., Perth Amboy, N. J., Woodbridge, N. J., and York, Pa.
[2] Excluding New York City.

## *Other Working Conditions*

Items of equipment furnished to members of the fire department, policies regarding vacations with pay, and promotion systems affect not only the real income of fire-department employees, but also the quality and cost of the service rendered to the public.

Without exception, fire departments in the 363 cities supplied sleeping quarters for firemen on night duty, and in 241 cities supplied bedding, linen, and laundry without charge. Only 50 cities furnished uniforms, 17 supplied cloth and trimmings for uniforms, and 5 gave

a cash allowance for uniforms. Other items of equipment such as helmets, rubber coats and boots, and badges were frequently furnished.

Practically all fire departments gave vacations with pay; less than a half of 1 percent of all employees in the 363 cities received no vacation. Although the vacation periods varied in length from 7 to 33 days, 62 percent of the employees received approximately 2 weeks. Cities in the East North Central and the South Atlantic regions gave the longest vacations. Members of the Chicago and Detroit fire departments, who constituted 31 percent of all employees in the East North Central region, received 20 days. Similarly, the department in Washington, D. C., with 15 percent of the employees in the South Atlantic region, gave 26-day vacations. Most members of the New York City fire department had vacations of 21 days. In only the East South Central region were the vacation periods appreciably shorter than 2 weeks; 42 percent of the total employees in this region received 10 days.

Promotion policies in fire departments are exemplified by the systems of promoting privates. In 263 of the 363 cities it was the general policy to promote privates automatically from one grade to another after a specified period of service, usually a year. Forty-six cities provided for promotion by civil-service examination, and 26 made promotions on the recommendation of superior officers. Of the 28 cities which reported that they did not classify privates in more than one grade, some indicated that they gave salary increases within that grade.

# HOURLY EARNINGS IN THE LUMBER AND TIMBER PRODUCTS INDUSTRY [1]

## *Summary*

IN THE winter of 1939–40 workers in the lumber and timber products industry earned an average of 50.1 cents per hour. As a result of the 30-cent minimum wage, which became effective on October 24, 1939, nearly one-third of all workers averaged from 30.0 to 32.5 cents. Three percent earned less than 30.0 cents, and the remainder were widely scattered among various higher-earnings classes. Only about 1 worker out of 10 received as much as 77.5 cents per hour.

Average hourly earnings in the individual branches of the industry varied from 36.6 cents in cooperage stock production to 94.8 cents in the manufacture of shingles. These two branches, however, employed only a small proportion of the workers in the industry. Logging and sawmilling, which together employed about half the workers surveyed, provided average hourly earnings of 59.7 and 47.5 cents per hour, respectively.

In the West, where timber is large and densely concentrated, the industry differs markedly from the northern and southern industry, and pays much higher wages. Western workers as a whole averaged 72.7 cents an hour, and one worker out of four earned 82.5 cents or more. Workers in the Douglas Fir region of the West averaged 77.3 cents, those in the Western Pine region averaged 68.9 cents, and those in the Redwood region averaged 63.7 cents.

Workers in the North earned an average of 46.4 cents an hour before adjustment to the 30-cent minimum wage (which affected about 1 worker out of 10). Only about 4.4 percent of the northern workers earned as much as 82.5 cents. Wages were highest in the Middle Atlantic States, where they averaged 54.6 cents, and lowest in New England (40.3 cents). Southern workers averaged 34.6 cents an hour, even after the effective date of the 30-cent minimum wage. Over two-thirds of all southern workers received less than 32.5 cents, and about half earned exactly 30.0 cents. Variations within the South were not marked, although workers in the border States had slightly higher earnings than those in the "deep South."

Earnings of workers engaged in the production of veneer, plywood, and veneer baskets were tabulated separately from those for the larger industry. Veneer workers received 37.3 cents an hour, on the average, while plywood workers earned 49.0 cents and veneer basket workers 34.2 cents.

[1] Prepared by Harry Ober of the Bureau's Division of Wage and Hour Statistics. The study was directed by Victor S. Baril, assisted by Abner Lakenan. A more detailed report, including information on weekly hours and earnings and separate figures for certain occupations, will be issued by the Bureau in the near future.

The study of the lumber and timber products industry undertaken in the fall and winter of 1939–40 is the first wage study in the industry for nearly a decade, and the most thoroughgoing study that has been made.[2]

## *Description of the Industry*

The scope of the industry covered by the Bureau's survey is accurately indicated by the definition adopted in the code of fair competition under the NRA, which included the production of "logs, poles, and piling; sawn lumber and products of planing mills operated in conjunction with sawmills; shingles; woodwork (millwork), including products of planing mills operated in conjunction with retail lumber yards; hardwood flooring; veneers; plywood; kiln-dried hardwood dimensions; lath; sawed boxes, shooks, and crates; plywood, veneer, and wire-bound packages and containers." As thus defined, the industry involves considerably more than the mere conversion of timber into lumber and other basic products. A narrower definition than the above, however, would be unrealistic, in view of the marked tendency of recent years for sawmills to perform certain wood-reworking processes, such as the manufacture of millwork, flooring, and dimension stock. The manufacture of finished furniture is not included in this industry.[3]

The various products embraced in the industry are classified by the Census of Manufactures in a number of industry categories, of which the following are most important: (1) Lumber and timber products not elsewhere classified; (2) planing-mill products and other wooden products not elsewhere classified; and (3) wooden boxes, except cigar boxes. These three broad census industries included over 12,000 establishments in 1939, employed an average of 391,000 wage earners, and paid wages amounting to $334,000,000. The value of the products manufactured in these industries amounted to $1,235,000,000, and the value added by manufacture totaled $671,000,000. The size of the industry has declined irregularly since the early years of the century.

In part, the decline of the industry has resulted from a drastic curtailment of building and construction. In part, however, it reflects the inroads of products competing with lumber. Substantial economies in the use of lumber have also been realized through surface coating and other treatment of wood, as well as through the increased use of plywood. The slump in lumber production has resulted in less

[2] The last of the previous studies by the Bureau of Labor Statistics was summarized in its Bulletin No. 586: Wages and Hours in the Lumber Industry in the United States: 1932. This study was limited to sawmill workers and certain workers in logging camps.

[3] A study of wages and hours in the furniture industry was undertaken in the spring of 1941. The results of this study will appear in an early issue of the Monthly Labor Review.

employment in the transportation industries which carry lumber from the western and southern producing centers to the eastern markets, as well as a decline in the employment furnished by the lumber industry itself.

To some extent lumber and timber products are manufactured in every State of the Union; but a large part of the industry—particularly the operation of logging camps and sawmills—is located in those regions where most of the remaining saw-timber stand is concentrated. In 1939, 48 percent of the total lumber production in the United States was cut in the West, chiefly in the coastal States, where the most luxuriant softwood timber stand is to be found; 42 percent was cut in the South, where a substantial amount of softwood and most of the remaining hardwood timber grows; and only 10 percent was cut in the North, east of the Rocky Mountains. From the nature of the industry the basic processes are carried on largely in sparsely populated areas or small towns.

The transportation of heavy lumber products from sawmills to distant finishing mills is expensive. In consequence, much of the reworking and finishing of lumber products is carried on near the sawmills, and integration in the industry is relatively extensive. Some wood-reworking processes, however, are carried on largely in States which are unimportant from the point of view of lumber production. Much of the custom millwork, for example, is manufactured in the Middle West, particularly in Iowa and Wisconsin.

Small and medium-size concerns play an important part in the industry. In 1935, among manufacturing industries employing 100,000 wage earners or more, only one showed less concentration of employment in the plants of the largest companies than did "Lumber and timber products not elsewhere classified"; among industries employing 25,000 to 100,000 workers, none showed less concentration than planing-mill products.[4] However, the largest plants employ a substantial proportion of the workers. In 1937 less than 10 percent of the establishments employed over 100 workers, but such establishments accounted for over half of the total employment in the industry. On the other extreme, one-fourth of the establishments employed 1 to 5 workers and they accounted for only 2.2 percent of the total employment.

## *The Labor Force*

The wage question is an important one in the lumber and timber products industry, since a substantial part of the cost of production consists of payments to the workers. In 1939 wages in the three

[4] See National Resources Committee, The Structure of the American Economy, Part I, Basic Characteristics, pp. 240-243.

census industries combined constituted 27 percent of the total value of the product, and half of the value added by manufacture.

Largely as a result of the decline in production, the employment in the industry has dropped substantially over a period of years. In 1939, when the Bureau's index of employment in durable-goods manufactures was 90.2 percent of the 1923–25 average, the index of employment in sawmills stood at 60.5 percent and that in millwork at 59.4 percent.

The lumber and timber products industry is highly seasonal, although its pattern of operations from month to month varies from area to area and by branch of the industry. Conditions of labor and the character of the labor force also show much variation. In logging camps, especially in the West, operations are carried on close to the available timber stand and away from centers of population; many of the workers have to live in camps and be on the move when the camp moves. Sawmill labor, too, is dependent to a large extent on the timber stand, and exhaustion of this stand in the area of the sawmill means movement to another area. In the South and in other sections much of the logging and sawing is carried on by farmers as a part-time activity supplementary to farming. As the production processes become further removed from the basic processes of logging, conditions of labor approximate more closely those of factory labor in general.

A large part of the labor in the industry consists of men. Women are employed in substantial proportions, however, in the production of veneer, plywood, veneer baskets, and wooden boxes. About half of the workers in the South are Negroes. In the West some Japanese, Chinese, and Mexicans are employed, chiefly as maintenance labor.

About one-fourth of the workers in the lumber and timber products industry belong to unions. In the North unionization has involved a considerably smaller proportion of the workers than in the West, while in the South only a negligible proportion of the workers are organized. At present, the United Brotherhood of Carpenters and Joiners of America (A. F. of L.) and the International Woodworkers of America (C. I. O.) are the principal unions in the industry. The Northwestern Council of Lumber and Sawmill Workers, established by the Brotherhood of Carpenters, reported a membership of 36,000 in January 1941. Some lumber workers in other parts of the country have also been organized by the Brotherhood, but their number is not known. The International Woodworkers of America had a membership of 59,000 in 1940, as indicated by its voting strength at the convention of that year.

## *Method and Scope of Study*

The material on which the Bureau's study is based was transcribed from pay-roll records by the Bureau's field representatives. The plants included in the sample were selected with care, in order that they might faithfully represent this complex industry. An appropriate number of remote and isolated logging camps and sawmills, as well as those which were more easily accessible, were included.

It was impracticable, however, to include many very small plants in the sample and, for the most part, the survey was limited to establishments employing 20 or more workers.[5] In the case of custom-millwork plants and shingle mills, establishments having as few as 10 workers were included, since a large part of the product of these branches is manufactured in small plants. While an excessive proportion of the largest plants were covered, overrepresentation of the workers in large plants was avoided by the selection of a sample of the workers in each of these large plants. In making such selection within individual establishments, a special effort was taken to obtain a balanced cross section of the labor force.

TABLE 1.—*Number of Establishments and Workers Included in Lumber and Timber Products Survey, by Census Classification and Region, 1939–40* [1]

| Industry | United States | | | | West | | | |
|---|---|---|---|---|---|---|---|---|
| | Establishments | | Workers | | Establishments | | Workers | |
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Total | 1,387 | 100.0 | 116,833 | 100.0 | 283 | 100.0 | 36,806 | 100.0 |
| Lumber and timber products not elsewhere classified | 808 | 58.3 | 84,789 | 72.6 | 220 | 77.8 | 32,330 | 87.8 |
| Planing-mill products, and other wooden products, not elsewhere classified | 425 | 30.6 | 18,261 | 15.6 | 43 | 15.2 | 1,975 | 5.4 |
| Wooden boxes, except cigar boxes | 87 | 6.3 | 6,528 | 5.6 | 12 | 4.2 | 935 | 2.5 |
| Plywood | 36 | 2.6 | 4,297 | 3.7 | 6 | 2.1 | 1,468 | 4.0 |
| Baskets, for fruits and vegetables | 31 | 2.2 | 2,958 | 2.5 | 2 | .7 | 98 | .3 |
| | North | | | | South | | | |
| Total | 488 | 100.0 | 26,461 | 100.0 | 616 | 100.0 | 53,566 | 100.0 |
| Lumber and timber products not elsewhere classified | 197 | 40.4 | 11,892 | 45.0 | 391 | 63.5 | 40,567 | 75.8 |
| Planing-mill products, and other wooden products, not elsewhere classified | 211 | 43.1 | 9,046 | 34.2 | 171 | 27.8 | 7,240 | 13.5 |
| Wooden boxes, except cigar boxes | 51 | 10.5 | 2,807 | 10.6 | 24 | 3.9 | 2,786 | 5.2 |
| Plywood | 12 | 2.5 | 1,308 | 4.9 | 18 | 2.9 | 1,521 | 2.8 |
| Baskets, for fruits and vegetables | 17 | 3.5 | 1,408 | 5.3 | 12 | 1.9 | 1,452 | 2.7 |

[1] West includes Montana, Wyoming, Colorado, New Mexico, and all States west of these; North is composed of Kansas, Missouri, Illinois, Indiana, Ohio, West Virginia, Maryland, Delaware, and all States north of these; South includes Oklahoma, Arkansas, Kentucky, Virginia, and all States south of these.

[5] The results of a check survey help to indicate the level of wages among small sawmills. These results are presented briefly in a later part of this article.

Information was obtained for a total of 116,833 workers in 1,387 establishments (table 1). The sample constituted over one-fourth of the workers in the three principal census classifications, three-eighths of the workers in the veneer-basket industry, and somewhat more than two-fifths of the workers in the plywood industry. Of the total number of establishments in the sample, 20.4 percent were in the West, 35.2 percent were in the North, and 44.4 percent in the South; while of the workers, 31.5 percent were in the West, 22.6 percent were in the North, and 45.9 percent in the South.

## PRODUCTION UNITS AND BRANCHES

Many establishments in this industry engage in two or more distinct and important stages of production. Thus, a very substantial proportion of all planing-mill products are produced in establishments usually classified not as planing mills, but as sawmills. In order to indicate the scope of the various processes more accurately and to group together the workers engaged in similar types of work, the present study has distinguished separate "production units" within establishments. The employees of a small planing mill operated in connection with a large sawmill are thus classified as planing-mill employees. The extent to which the distinction of production units was necessary is indicated by the fact that the 1,387 establishments studied included 2,248 production units.

TABLE 2.—*Number of Production Units and Workers Included in Lumber and Timber Products Survey, by Branch and Type of Organization*

| Industry and branch | Total | | Integrated | | Independent | |
|---|---|---|---|---|---|---|
| | Number of production units [1] | Number of workers | Number of production units [1] | Number of workers | Number of production units [1] | Number of workers |
| Total in survey | 2,248 | 116,833 | 1,345 | 72,416 | 903 | 44,417 |
| Lumber and timber products industry | 2,129 | 105,362 | 1,316 | 69,540 | 813 | 35,822 |
| Logging | 409 | 21,011 | 370 | 18,007 | 39 | 3,004 |
| Sawmilling | 625 | 34,159 | 438 | 28,258 | 187 | 5,901 |
| Surfacing | 443 | 16,434 | 344 | 13,206 | 99 | 3,228 |
| Custom-millwork manufacture | 242 | 6,258 | 14 | 259 | 228 | 5,999 |
| Stock-millwork manufacture | 89 | 6,279 | 10 | 622 | 79 | 5,657 |
| Hardwood-flooring manufacture | 38 | 2,649 | 16 | 937 | 22 | 1,712 |
| Dimension (hardwood) stock manufacture | 34 | 1,818 | 19 | 844 | 15 | 974 |
| Cooperage-stock manufacture | 47 | 2,325 | 7 | 281 | 40 | 2,044 |
| Shingle manufacture | 27 | 1,175 | 10 | 346 | 17 | 829 |
| Wooden-box (except cigar boxes) manufacture | 175 | 13,254 | 88 | 6,780 | 87 | 6,474 |
| neer and veneer products | 119 | 11,471 | 29 | 2,876 | 90 | 8,595 |
| Veneer manufacture | 39 | 2,226 | 16 | 886 | 23 | 1,340 |
| Plywood manufacture | 47 | 6,166 | 11 | 1,869 | 36 | 4,297 |
| Veneer basket manufacture | 33 | 3,079 | 2 | 121 | 31 | 2,958 |

[1] Includes as a separate unit each branch of the industry in which an establishment engages. Thus, some establishments include more than 1 production unit.

Because of the special character of the labor, and the distinct processes involved in the manufacture of veneer products, the production of such articles has been excluded from the major industry. The three branches of the veneer and veneer products group are discussed separately at the end of this article. This survey covered 119 production units in the three branches combined.

The "lumber and timber products industry," excluding veneer and veneer products, is represented by 2,129 production units in 10 distinct branches. In the largest of these branches, sawmilling, 625 production units and 34,159 workers were studied; in the smallest, shingle manufacture, the survey covered only 27 production units and 1,175 workers. Data for all branches are given in table 2.

## *Nature of Data Obtained*

As is customary in the Bureau's studies of this type, full information was secured regarding the sex, color, and occupation of each worker studied, and his hours of work and earnings during a representative pay-roll period. The hours referred to consist of hours actually worked, whether paid for at straight time or punitive overtime rates. Although information regarding overtime was secured in this study, it was found through a spot check that the amount of overtime involved at the time of the survey was inconsiderable and did not warrant separate analysis. Total earnings include the payment of bonuses, payments for overtime at penalty rates, and the estimated value of board and lodging wherever they were provided. In general, few workers were on piece rates and still fewer received bonuses or other incentives; the bulk of the workers were on a straight time-payment basis.

*Period covered.*—The survey of the lumber and timber products industry was started early in September 1939 and continued until April 1940. Practically all of the plants scheduled in the West and North provided data for a pay-roll period prior to October 24, 1939, when the minimum wage under the Fair Labor Standards Act was 25 cents an hour, and the maximum hours of work were 44 per week. Most of the schedules for the South, however, were for a pay-roll period after October 24, 1939, and therefore reflect the influence of the minimum hourly wage of 30 cents and the maximum weekly hours of 42 per week, which became effective on this date. Because of this fact, the data for the West and the North are not entirely comparable with those for the South and, in the presentation of summaries for the country as a whole, have required minor adjustments. These adjustments have involved the assumption that all workers in the West and the North who earned less than 30 cents when the survey was made were raised to the earnings class "30.0 and under 32.5 cents" per

hour soon afterward.[6] Although it has been impracticable to extend the adjustments to subregions and other minor divisions of the industry, care has been taken to avoid misleading comparisions of data representing different periods.

## *Earnings in the Lumber and Timber Products Industry*

### THE UNITED STATES AS A WHOLE

In the 10 branches which are considered in the present report to constitute the lumber and timber products industry, hourly earnings in the winter of 1939–40 averaged 50.1 cents. This average is based on schedules covering 105,362 workers in 1,297 establishments. In the summary figures for the country as a whole, presented in table 3, data for the West and North have been adjusted to make allowance for changes in submininum rates following the establishment of the 30-cent minimum on October 24, 1939. This adjustment has involved raising to the earnings class "30.0 and under 32.5 cents" the 0.1 percent of the western workers and the 10.9 percent of the northern workers who were originally reported as receiving less than 30.0 cents an hour. It has had the effect of raising the over-all average for the West by only 0.7 cent, and that for the North by only 1.0 cent.

Nearly one-third (32.7 percent) of the workers in the industry had earnings of 30.0 and under 32.5 cents per hour; of these the great majority received exactly 30.0 cents.[7] Only 3.0 percent of the workers received less than the minimum.[8] Of the remainder of the workers, about one-sixth earned from 32.5 to 42.5 cents per hour; nearly one-fifth earned from 42.5 to 62.5 cents per hour; nearly another fifth earned from 62.5 to 82.5 cents per hour; and one-tenth had earnings of 82.5 cents per hour or more.

A distribution of workers by average hourly earnings, within plants grouped according to the over-all plant averages, indicates that in the industry as a whole there is a marked tendency for average hourly earnings to cluster about the averages for the plants. Thus, the few plants paying average hourly earnings under 30 cents provided hourly earnings of less than 30 cents for about four-fifths of the workers they

[6] That this assumption is fairly reasonable is indicated by a spot check made by the Bureau in the latter part of 1940. On the basis of the returns of a mailed inquiry it appears that relatively few workers in the lumber industry in the North were then receiving less than 30 cents an hour. Replies were received from 103 firms which in 1939 paid some of their workers less than 30 cents an hour. Only 11 of the reporting firms were still paying any of their workers less than 30 cents, and 10 of these 11 were engaged exclusively in intrastate commerce. Only 1 worker in the remaining plant was reported to be earning less than 30 cents an hour at the time of the spot check.

[7] Of the 34,357 workers appearing in this table as receiving 30.0 and under 32.5 cents per hour, 29,710 were actually reported in this wage class by southern plants, 2,125 were so reported by western and northern plants, and only 2,522 were so classified as a result of the adjustment described above.

[8] All of the workers classified as receiving less than 30.0 cents an hour were actually reported at such wages by southern plants. Presumably a very small additional number of western and northern employees also received less than 30.0 cents per hour, but, as a result of the method of adjustment employed, these are here included in the 30.0 and under 32.5 cents class.

employed. On the other hand, plants with average hourly earnings of 82.5 cents and over yielded earnings of 82.5 cents and over for from half to three-fourths of the workers they employed; relatively few workers in these plants were earning as little as 62.5 cents per hour. In the intermediate earnings brackets, there was a similar tendency for earnings to concentrate in only a few class intervals above and below the averages for the plants. Thus, the wide dispersion of individual earnings apparent in table 3 is due therefore in large part to differences among plants.

TABLE 3.—*Distribution of Workers in Lumber and Timber Products Industry by Average Hourly Earnings and by Branch of Industry, 1939–40*

[Adjusted for 30-cent minimum wage [1]]

| Average hourly earnings (cents) | Total | | Branch (percentage distribution) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Simple percentage | Cumulative percentage | Logging | Sawmilling | Surfacing | Custom-millwork manufacture | Stock-millwork manufacture | Hardwood-flooring manufacture | Hardwood dimension stock manufacture | Cooperage stock manufacture | Shingle manufacture | Wooden-box manufacture |
| Under 30.0 | 3.0 | 3.0 | 1.7 | 3.9 | 6.0 | 4.8 | 1.6 | 0.1 | 0.2 | 1.2 | ..... | 0.4 |
| 30.0 and under 32.5 | 32.7 | 35.6 | 22.8 | 37.4 | 42.6 | 7.9 | 8.3 | 36.2 | 39.3 | 60.6 | ..... | 43.2 |
| 32.5 and under 35.0 | 4.6 | 40.2 | 4.9 | 4.5 | 4.0 | 1.4 | 1.7 | 12.4 | 8.5 | 8.1 | 0.1 | 5.7 |
| 35.0 and under 37.5 | 4.7 | 45.0 | 4.4 | 4.5 | 3.7 | 4.6 | 4.8 | 10.1 | 8.3 | 4.3 | ..... | 6.2 |
| 37.5 and under 40.0 | 2.7 | 47.7 | 2.8 | 2.7 | 1.9 | 1.6 | 2.6 | 7.8 | 4.8 | 2.4 | ..... | 3.2 |
| 40.0 and under 42.5 | 4.4 | 52.1 | 3.1 | 4.0 | 3.1 | 6.7 | 9.6 | 9.5 | 8.9 | 3.5 | ..... | 4.7 |
| 42.5 and under 47.5 | 5.0 | 57.1 | 4.0 | 4.6 | 2.9 | 6.6 | 11.8 | 8.3 | 8.6 | 4.0 | ..... | 5.9 |
| 47.5 and under 52.5 | 5.1 | 62.3 | 3.8 | 4.2 | 3.6 | 9.0 | 11.6 | 4.4 | 7.4 | 5.8 | ..... | 6.8 |
| 52.5 and under 57.5 | 4.0 | 66.3 | 2.8 | 2.9 | 3.1 | 7.3 | 10.0 | 3.1 | 3.7 | 3.3 | ..... | 6.4 |
| 57.5 and under 62.5 | 5.1 | 71.3 | 4.2 | 4.6 | 5.1 | 8.8 | 8.1 | 3.2 | 3.7 | 2.1 | .2 | 6.0 |
| 62.5 and under 67.5 | 7.1 | 78.5 | 7.0 | 8.2 | 9.0 | 7.6 | 9.5 | 2.5 | 2.0 | 1.1 | 2.2 | 4.1 |
| 67.5 and under 72.5 | 4.9 | 83.4 | 5.1 | 5.3 | 5.1 | 6.3 | 6.8 | .7 | 1.2 | 2.0 | 17.4 | 2.4 |
| 72.5 and under 77.5 | 3.9 | 87.3 | 6.3 | 3.6 | 3.0 | 7.0 | 4.1 | .9 | .7 | .8 | 11.0 | 1.3 |
| 77.5 and under 82.5 | 2.9 | 90.2 | 6.0 | 2.5 | 2.2 | 3.8 | 1.8 | .3 | .4 | .4 | 7.3 | 1.1 |
| 82.5 and under 87.5 | 2.0 | 92.2 | 3.7 | 1.6 | 1.4 | 3.6 | 2.4 | .1 | .3 | .2 | 9.1 | .9 |
| 87.5 and under 92.5 | 2.0 | 94.2 | 4.0 | 1.7 | 1.1 | 3.5 | 1.2 | .2 | .8 | .1 | 6.6 | .6 |
| 92.5 and under 100.0 | 1.9 | 96.0 | 4.3 | 1.4 | 1.3 | 1.9 | .7 | (2) | .7 | .1 | 8.5 | .5 |
| 100.0 and under 110.0 | 1.9 | 97.9 | 4.4 | .9 | .6 | 4.8 | 2.2 | .2 | .4 | ..... | 11.9 | .3 |
| 110.0 and under 120.0 | 1.0 | 98.9 | 2.3 | .5 | .2 | 2.0 | 1.1 | ..... | ..... | ..... | 9.0 | .1 |
| 120.0 and under 130.0 | .5 | 99.4 | 1.2 | .3 | .1 | .4 | .1 | ..... | .1 | (2) | 7.7 | .1 |
| 130.0 and under 140.0 | .3 | 99.7 | .7 | .3 | (2) | .4 | (2) | ..... | ..... | ..... | 4.4 | (2) |
| 140.0 and under 150.0 | .1 | 99.8 | .2 | .1 | (2) | (2) | (2) | ..... | ..... | ..... | 2.7 | (2) |
| 150.0 and over | .2 | 100.0 | .3 | .3 | (2) | (2) | ..... | ..... | ..... | ..... | 1.9 | .1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of production units | 2,129 | | 409 | 625 | 443 | 242 | 89 | 38 | 34 | 47 | 27 | 175 |
| Number of workers | 105,362 | | 21,011 | 34,159 | 16,434 | 6,258 | 6,279 | 2,649 | 1,818 | 2,325 | 1,175 | 13,254 |
| Average hourly earnings | $0.501 | | $0.597 | $0.475 | $0.448 | $0.600 | $0.547 | $0.390 | $0.403 | $0.366 | $0.948 | $0.425 |

[1] In this table data for the West and North, which were collected prior to October 24, 1939, the effective date of the 30-cent minimum wage, have been adjusted to reflect the changes resulting from the 30 cent minimum. Data for the South were collected subsequent to October 24, 1939, and consequently reflect without adjustment the changes resulting from the 30-cent minimum.

[2] Less than a tenth of 1 percent.

*Variations by branch of the industry.*—The lumber and timber products industry comprises a group of widely different branches. Each of these has specialized labor requirements and other characteristics which result in variations in average hourly earnings. Such products as logs, bolts, railroad ties, and pilings are manufactured in

hour soon afterward.[6] Although it has been impracticable to extend the adjustments to subregions and other minor divisions of the industry, care has been taken to avoid misleading comparisions of data representing different periods.

## *Earnings in the Lumber and Timber Products Industry*

### THE UNITED STATES AS A WHOLE

In the 10 branches which are considered in the present report to constitute the lumber and timber products industry, hourly earnings in the winter of 1939–40 averaged 50.1 cents. This average is based on schedules covering 105,362 workers in 1,297 establishments. In the summary figures for the country as a whole, presented in table 3, data for the West and North have been adjusted to make allowance for changes in subminimum rates following the establishment of the 30-cent minimum on October 24, 1939. This adjustment has involved raising to the earnings class "30.0 and under 32.5 cents" the 0.1 percent of the western workers and the 10.9 percent of the northern workers who were originally reported as receiving less than 30.0 cents an hour. It has had the effect of raising the over-all average for the West by only 0.7 cent, and that for the North by only 1.0 cent.

Nearly one-third (32.7 percent) of the workers in the industry had earnings of 30.0 and under 32.5 cents per hour; of these the great majority received exactly 30.0 cents.[7] Only 3.0 percent of the workers received less than the minimum.[8] Of the remainder of the workers, about one-sixth earned from 32.5 to 42.5 cents per hour; nearly one-fifth earned from 42.5 to 62.5 cents per hour; nearly another fifth earned from 62.5 to 82.5 cents per hour; and one-tenth had earnings of 82.5 cents per hour or more.

A distribution of workers by average hourly earnings, within plants grouped according to the over-all plant averages, indicates that in the industry as a whole there is a marked tendency for average hourly earnings to cluster about the averages for the plants. Thus, the few plants paying average hourly earnings under 30 cents provided hourly earnings of less than 30 cents for about four-fifths of the workers they

[6] That this assumption is fairly reasonable is indicated by a spot check made by the Bureau in the latter part of 1940. On the basis of the returns of a mailed inquiry it appears that relatively few workers in the lumber industry in the North were then receiving less than 30 cents an hour. Replies were received from 103 firms which in 1939 paid some of their workers less than 30 cents an hour. Only 11 of the reporting firms were still paying any of their workers less than 30 cents, and 10 of these 11 were engaged exclusively in intrastate commerce. Only 1 worker in the remaining plant was reported to be earning less than 30 cents an hour at the time of the spot check.

[7] Of the 34,357 workers appearing in this table as receiving 30.0 and under 32.5 cents per hour, 29,710 were actually reported in this wage class by southern plants, 2,125 were so reported by western and northern plants, and only 2,522 were so classified as a result of the adjustment described above.

[8] All of the workers classified as receiving less than 30.0 cents an hour were actually reported at such wages by southern plants. Presumably a very small additional number of western and northern employees also received less than 30.0 cents per hour, but, as a result of the method of adjustment employed, these are here included in the 30.0 and under 32.5 cents class.

employed. On the other hand, plants with average hourly earnings of 82.5 cents and over yielded earnings of 82.5 cents and over for from half to three-fourths of the workers they employed; relatively few workers in these plants were earning as little as 62.5 cents per hour. In the intermediate earnings brackets, there was a similar tendency for earnings to concentrate in only a few class intervals above and below the averages for the plants. Thus, the wide dispersion of individual earnings apparent in table 3 is due therefore in large part to differences among plants.

TABLE 3.—*Distribution of Workers in Lumber and Timber Products Industry by Average Hourly Earnings and by Branch of Industry, 1939–40*

[Adjusted for 30-cent minimum wage [1]]

| Average hourly earnings (cents) | Total | | Branch (percentage distribution) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Simple percentage | Cumulative percentage | Logging | Sawmilling | Surfacing | Custom-millwork manufacture | Stock-millwork manufacture | Hardwood-flooring manufacture | Hardwood dimension stock manufacture | Cooperage stock manufacture | Shingle manufacture | Wooden-box manufacture |
| Under 30.0 | 3.0 | 3.0 | 1.7 | 3.9 | 6.0 | 4.8 | 1.6 | 0.1 | 0.2 | 1.2 | ..... | 0.4 |
| 30.0 and under 32.5 | 32.7 | 35.6 | 22.8 | 37.4 | 42.6 | 7.9 | 8.3 | 36.2 | 39.3 | 60.6 | ..... | 43.2 |
| 32.5 and under 35.0 | 4.6 | 40.2 | 4.9 | 4.5 | 4.0 | 1.4 | 1.7 | 12.4 | 8.5 | 8.1 | 0.1 | 5.7 |
| 35.0 and under 37.5 | 4.7 | 45.0 | 4.4 | 4.5 | 3.7 | 4.6 | 4.8 | 10.1 | 8.3 | 4.3 | ..... | 6.2 |
| 37.5 and under 40.0 | 2.7 | 47.7 | 2.8 | 2.7 | 1.9 | 1.6 | 2.6 | 7.8 | 4.8 | 2.4 | ..... | 3.2 |
| 40.0 and under 42.5 | 4.4 | 52.1 | 3.1 | 4.0 | 3.1 | 6.7 | 9.6 | 9.5 | 8.9 | 3.5 | ..... | 4.7 |
| 42.5 and under 47.5 | 5.0 | 57.1 | 4.0 | 4.6 | 2.9 | 6.6 | 11.8 | 8.3 | 8.6 | 4.0 | ..... | 5.9 |
| 47.5 and under 52.5 | 5.1 | 62.3 | 3.8 | 4.2 | 3.6 | 9.0 | 11.6 | 4.4 | 7.4 | 5.8 | ..... | 6.8 |
| 52.5 and under 57.5 | 4.0 | 66.3 | 2.8 | 2.9 | 3.1 | 7.3 | 10.0 | 3.1 | 3.7 | 3.3 | ..... | 6.4 |
| 57.5 and under 62.5 | 5.1 | 71.3 | 4.2 | 4.6 | 5.1 | 8.8 | 8.1 | 3.2 | 3.7 | 2.1 | .2 | 6.0 |
| 62.5 and under 67.5 | 7.1 | 78.5 | 7.0 | 8.2 | 9.0 | 7.6 | 9.5 | 2.5 | 2.0 | 1.1 | 2.2 | 4.1 |
| 67.5 and under 72.5 | 4.9 | 83.4 | 5.1 | 5.3 | 5.1 | 6.3 | 6.8 | .7 | 1.2 | 2.0 | 17.4 | 2.4 |
| 72.5 and under 77.5 | 3.9 | 87.3 | 6.3 | 3.6 | 3.0 | 7.0 | 4.1 | .9 | .7 | .8 | 11.0 | 1.3 |
| 77.5 and under 82.5 | 2.9 | 90.2 | 6.0 | 2.5 | 2.2 | 3.8 | 1.8 | .3 | .4 | .4 | 7.3 | 1.1 |
| 82.5 and under 87.5 | 2.0 | 92.2 | 3.7 | 1.6 | 1.4 | 3.6 | 2.4 | .1 | .3 | .2 | 9.1 | .9 |
| 87.5 and under 92.5 | 2.0 | 94.2 | 4.0 | 1.7 | 1.1 | 3.5 | 1.2 | .2 | .8 | .1 | 6.6 | .6 |
| 92.5 and under 100.0 | 1.9 | 96.0 | 4.3 | 1.4 | 1.3 | 1.9 | .7 | (2) | .7 | .1 | 8.5 | .5 |
| 100.0 and under 110.0 | 1.9 | 97.9 | 4.4 | .9 | .6 | 4.8 | 2.2 | .2 | .4 | ..... | 11.9 | .3 |
| 110.0 and under 120.0 | 1.0 | 98.9 | 2.3 | .5 | .2 | 2.0 | 1.1 | ..... | ..... | ..... | 9.0 | .1 |
| 120.0 and under 130.0 | .5 | 99.4 | 1.2 | .3 | .1 | .4 | .1 | ..... | .1 | (2) | 7.7 | .1 |
| 130.0 and under 140.0 | .3 | 99.7 | .7 | .3 | (2) | .4 | (2) | ..... | ..... | ..... | 4.4 | (2) |
| 140.0 and under 150.0 | .1 | 99.8 | .2 | .1 | (2) | (2) | (2) | ..... | ..... | ..... | 2.7 | (2) |
| 150.0 and over | .2 | 100.0 | .3 | .3 | (2) | (2) | ..... | ..... | ..... | ..... | 1.9 | .1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of production units | 2,129 | | 409 | 625 | 443 | 242 | 89 | 38 | 34 | 47 | 27 | 175 |
| Number of workers | 105,362 | | 21,011 | 34,159 | 16,434 | 6,258 | 6,279 | 2,649 | 1,818 | 2,325 | 1,175 | 13,254 |
| Average hourly earnings | $0.501 | | $0.597 | $0.475 | $0.448 | $0.600 | $0.547 | $0.390 | $0.403 | $0.366 | $0.948 | $0.425 |

[1] In this table data for the West and North, which were collected prior to October 24, 1939, the effective date of the 30-cent minimum wage, have been adjusted to reflect the changes resulting from the 30 cent minimum. Data for the South were collected subsequent to October 24, 1939, and consequently reflect without adjustment the changes resulting from the 30-cent minimum.

[2] Less than a tenth of 1 percent.

*Variations by branch of the industry.*—The lumber and timber products industry comprises a group of widely different branches. Each of these has specialized labor requirements and other characteristics which result in variations in average hourly earnings. Such products as logs, bolts, railroad ties, and pilings are manufactured in

logging camps. Lumber is produced chiefly in sawmills, which are often operated in conjunction with logging camps. Lumber products, on the other hand, are manufactured in a variety of mills; planing mills, for example, include not only the surfacing of lumber, but also the manufacture of flooring, dimension stock, and custom and stock millwork. Additional specialized operations are the manufacture of cooperage stock, shingles, and wooden boxes. Some of the products of the industry, particularly the wood-reworking group, involve a considerable number of operations which are similar from an occupational standpoint. Others, such as logging, sawmilling, and the manufacture of cooperage stock and shingles, have distinct occupational patterns. These differences are reflected in the skill requirements of the labor force, and account to a considerable extent for variations in earnings in the industry.

Average hourly earnings in individual branches of the industry in the winter of 1939–40 varied from 36.6 cents in cooperage-stock production to 94.8 cents in the manufacture of shingles (table 3). These extremely low and extremely high earnings, however, involved only small proportions of the total number of workers in the industry. The two branches, logging and sawmilling, which together account for about half the workers in the sample, had average earnings of 59.7 cents and 47.5 cents per hour, respectively. The next largest branch, surfacing, which accounts for nearly a sixth of all the workers in the sample, showed average hourly earnings of 44.8 cents per hour. Workers in custom-millwork production earned an average of 60.0 cents per hour, while workers in wooden-box production, who comprised one-eighth of the workers in the sample, had average hourly earnings of 42.5 cents. As is indicated later, regional factors are of paramount importance in their influence on average hourly earnings among the branches of the industry.

In all but three of the branches of the industry (shingles, custom millwork, and stock millwork), the distributions of workers by average hourly earnings show a marked concentration in the class interval "30.0 and under 32.5 cents" per hour; the proportions of workers included in this class range from over a fifth (22.8 percent) in logging to three-fifths (60.6 percent) in cooperage-stock production. None of the workers in the shingle branch had such low earnings, and only 7.9 percent of the workers in custom millwork and 8.3 percent in stock millwork were in this class. Few workers in any branch had earnings less than 30 cents per hour after the 30-cent minimum of the Fair Labor Standards Act became effective. Considerable proportions of workers in logging, sawmilling, surfacing, custom- and stock-millwork and shingles manufacture had earnings of 62.5 cents per hour and over. In the latter branch, in fact, a little over three-fifths earned 82.5 cents per hour and over.

### GEOGRAPHICAL VARIATIONS

The profound differences in the timber stand in various parts of the country, the scale and character of logging and other operations, and the level of wages in the industry make it essential to examine the wage structure of the industry by separate regions.

The West, the North, and the South [9] present many contrasts. In the West, for example, the available stand of saw timber is heavily concentrated, and permits the establishment of large, highly mechanized, and relatively permanent logging camps and sawmills; in the North and South, on the other hand, the saw timber ready for cutting is scattered, and small and shifting operations are typical. In 1939, the active lumber mills of the West produced an average of 5,065 million board feet of lumber per mill as against 607 per mill in the North and 997 per mill in the South. Thus, on the average, the West produced more than 8 times as much lumber per mill as the North and five times as much as the South. Timber in the West is of larger diameter, as a rule, than timber in the North or South, and there are, of course, differences in the labor supply and in other important factors.

Hourly earnings at the time of the study averaged 72.7 cents in the West, 46.4 cents in the North, and 34.6 cents in the South.[10] The figures here given for the West and the North—and all those presented in the remainder of this section of the article—are unadjusted, and consequently do not reflect changes due to the legal 30-cent minimum wage. In view of the fact that data for the South were collected subsequent to the effective date of the 30-cent minimum, the figures probably understate slightly the difference between hourly earnings in the South and those in the West and North.

*Earnings in the West.*—Workers in the West are by far the highest paid in the industry. The distribution by average hourly earnings of the 34,655 western workers studied shows that although the range of earnings was from under 25.0 cents to over $1.50, nearly half (45.9 percent) were concentrated in the range from 62.5 to 82.5 cents per

[9] The States included in these areas are listed in the footnote to table 1.

[10] As a supplement to its main survey in the lumber and timber products industry, in which it was impracticable to include a representative sample of the thousands of establishments employing fewer than 20 wage earners, the Bureau conducted a spot-check survey of hourly earnings in a few very small logging camps and sawmills. Although the scope of this supplementary study was limited, the establishments surveyed were chosen on a random basis, and the results of the survey are believed to be significant.

In the spot-check survey, wage and hour data were secured for 5,323 workers in the 382 widely scattered establishments. Of these about two-thirds were in the South, one-fifth in the West, and roughly one-tenth in the North. Due to a lack of adequate time records, logging was represented less fully than sawmilling.

The data obtained indicate that hourly earnings in small logging operations averaged 64.0 cents in the West, 36.0 cents in the North, and 25.9 cents in the South. No workers in the West, but 14.5 percent in the North and 45.7 percent in the South, earned less than 30.0 cents. Employees in small sawmills averaged 52.3 cents in the West, 37.5 cents in the North, and 25.6 cents in the South; workers earning less than 30.0 cents amounted to 2.4 percent of the total in the West, 18.9 percent in the North, and 47.5 percent in the South. In the case of each branch of the industry data for the West and North refer to a period prior to the effective date of the 30-cent minimum wage and data for the South to a period subsequent to that date.

hour and more than one-fourth had earnings of 82.5 cents and over (table 4). Only 2.8 percent earned less than 40.0 cents per hour.

TABLE 4.—*Distribution of Workers in Lumber and Timber Products Industry in the West, by Average Hourly Earnings and Branch of Industry, 1939* [1]

| Average hourly earnings | Total | | | Branch (percentage distribution) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Number of workers | Simple percentage | Cumulative percentage | Logging | Sawmilling [2] | Surfacing | Custom-millwork manufacture | Stock-millwork manufacture | Shingle manufacture | Wooden-box manufacture |
| Under 25.0 cents | 11 | (3) | (3) | 0.1 | | | | | | |
| 25.0 and under 27.5 cents | 23 | 0.1 | 0.1 | (3) | 0.1 | 0.1 | 0.7 | 0.2 | | 0.1 |
| 27.5 and under 30.0 cents | 8 | (3) | .1 | (3) | (3) | | .1 | | | |
| 30.0 and under 32.5 cents | 137 | .4 | .5 | .2 | .5 | .8 | 1.3 | .2 | | .1 |
| 32.5 and under 35.0 cents | 186 | .5 | 1.1 | .2 | .7 | .7 | .3 | | 0.1 | 1.0 |
| 35.0 and under 37.5 cents | 453 | 1.3 | 2.4 | .3 | 1.3 | 2.0 | 1.2 | 3.7 | | 3.3 |
| 37.5 and under 40.0 cents | 176 | .5 | 2.9 | .5 | .4 | .6 | 1.2 | .8 | | .7 |
| 40.0 and under 42.5 cents | 437 | 1.3 | 4.1 | .3 | .9 | 1.0 | 1.7 | 6.0 | | 5.1 |
| 42.5 and under 47.5 cents | 877 | 2.5 | 6.7 | 1.5 | 2.7 | 1.9 | 2.6 | 6.4 | | 6.3 |
| 47.5 and under 52.5 cents | 2,066 | 6.0 | 12.6 | 3.6 | 6.4 | 6.7 | 3.0 | 12.4 | | 12.4 |
| 52.5 and under 57.5 cents | 1,983 | 5.7 | 18.3 | 2.9 | 5.5 | 6.7 | 3.0 | 5.7 | | 18.6 |
| 57.5 and under 62.5 cents | 3,472 | 10.0 | 28.4 | 6.7 | 11.1 | 13.0 | 5.2 | 8.4 | .2 | 18.0 |
| 62.5 and under 67.5 cents | 6,116 | 17.6 | 46.0 | 12.0 | 22.6 | 24.6 | 11.0 | 23.4 | 2.2 | 11.6 |
| 67.5 and under 72.5 cents | 4,060 | 11.7 | 47.7 | 9.3 | 14.2 | 13.9 | 8.3 | 10.2 | 17.4 | 6.5 |
| 72.5 and under 77.5 cents | 3,193 | 9.2 | 66.9 | 11.6 | 9.2 | 8.2 | 8.2 | 5.8 | 11.0 | 3.6 |
| 77.5 and under 82.5 cents | 2,567 | 7.4 | 74.3 | 11.1 | 6.2 | 5.9 | 5.2 | 2.9 | 7.3 | 3.8 |
| 82.5 and under 87.5 cents | 1,716 | 5.0 | 79.3 | 6.9 | 3.9 | 3.9 | 3.8 | 4.6 | 9.1 | 2.9 |
| 87.5 and under 92.5 cents | 1,767 | 5.1 | 84.4 | 7.4 | 4.3 | 3.1 | 9.6 | 3.4 | 6.6 | 1.9 |
| 92.5 and under 100.0 cents | 1,792 | 5.2 | 89.6 | 8.1 | 3.8 | 3.7 | 7.4 | 1.9 | 8.5 | 1.8 |
| 100.0 and under 110.0 cents | 1,659 | 4.8 | 94.4 | 8.3 | 2.1 | 1.8 | 20.1 | 2.4 | 11.9 | 1.2 |
| 110.0 and under 120.0 cents | 839 | 2.4 | 96.8 | 4.4 | 1.1 | .7 | 4.8 | 1.3 | 9.0 | .5 |
| 120.0 and under 130.0 cents | 493 | 1.4 | 98.2 | 2.3 | .9 | .4 | .9 | .3 | 7.7 | .2 |
| 130.0 and under 140.0 cents | 305 | .9 | 99.0 | 1.3 | .9 | .1 | .4 | | 4.4 | .1 |
| 140.0 and under 150.0 cents | 122 | .4 | 99.4 | .4 | .3 | .1 | | | 2.7 | .1 |
| 150.0 cents and over | 197 | .6 | 100.0 | .6 | .9 | .1 | | | 1.9 | .2 |
| Total | | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of production units | | 514 | | 153 | 139 | 100 | 33 | 13 | 27 | 49 |
| Number of workers | | 34,655 | | 11,151 | 11,636 | 5,555 | 919 | 1,192 | 1,175 | 3,027 |
| Average hourly earnings | | $0.727 | | $0.801 | $0.702 | $0.671 | $0.791 | $0.631 | $0.948 | $0.601 |

[1] The data presented in this table have not been adjusted, and do not reflect the influence of the 30-cent minimum wage.
[2] Includes small unit producing cooperage stock.
[3] Less than a tenth of 1 percent.

Average hourly earnings by branches of the industry in the West ranged from 63.1 cents in stock-millwork production to as high as 94.8 cents per hour in shingle manufacturing. These two branches, however, included a very small proportion of all workers. Most of the workers were employed in logging, sawmilling, and surfacing; average hourly earnings in these three branches amounted to 80.1 cents, 70.2 cents, and 67.1 cents per hour, respectively. Since the manufacture of hardwood flooring, hardwood-dimension stock and cooperage stock is confined largely to the South and the North, no data are shown for these three branches in the West.

The distribution of workers by average hourly earnings in the separate branches shows that very few western workers in any branch earned less than 30.0 cents per hour, even before the 30-cent minimum

became effective; in logging, sawmilling, surfacing, and wooden-box manufacturing only 0.1 percent had such earnings, while in custom millwork, 0.8 percent earned under 30.0 cents. Except in the wooden-box branch, the workers tended to concentrate in the earnings intervals of 62.5 cents and over; the proportions of workers who had such average hourly earnings ranged from 56.2 percent in stock millwork to 99.7 percent in the shingle branch. In the wooden-box branch over half of the workers were concentrated in the earnings range from 42.5 to 62.5 cents per hour, and one-fourth had earnings of from 62.5 to 82.5 cents per hour.

Average hourly earnings in the Pacific Coast States were considerably higher than in the Mountain States; the 30,068 workers in the Pacific Coast States averaged 74.3 cents, while the 4,587 in the Mountain States averaged only 62.3 cents. This regional grouping, however, is probably less significant than the classification of regions on the basis of the type of lumber produced.

The three principal kinds of wood produced in the West are Douglas fir, western pine, and redwood. Each is to be found in a fairly distinct region. The Douglas Fir region includes parts of Washington and Oregon between the coast and the Cascade Mountains. Douglas fir is the principal species of wood produced here, and the density of the timber stand ranges from 35,000 to 60,000 board feet of lumber per acre. About half of the total saw-timber stand of the West is in this region. The Western Pine region includes by far the greater part of the West. The Redwood region is confined to a narrow strip in California, along the Pacific Coast. Its redwood trees are very large and some areas yield as much as 100,000 board feet of lumber per acre.

Average hourly earnings in the Douglas Fir region were 77.3 cents per hour, in the Western Pine region 68.9 cents, and in the Redwood region 63.7 cents (table 5). The distributions of workers by average hourly earnings in each of these three regions show marked concentrations in the class intervals of over 40.0 cents per hour. In the Douglas Fir region over half of the workers were included in the range from 62.5 to 82.5 cents per hour, while nearly a third of the workers earned 82.5 cents per hour and over. In the Western Pine region nearly two-fifths of the workers were included in the range from 40.0 to 62.5 cents per hour, over a third earned from 62.5 to 82.5 cents, and a fifth had earnings of 82.5 cents and over. In the Redwood region nearly three-fifths of all workers were included in the range from 40.0 to 62.5 cents per hour and nearly a third were in the 20-cent range from 62.5 to 82.5 cents.

TABLE 5.—*Percentage Distribution of Workers in Lumber and Timber Products Industry in the West, by Average Hourly Earnings and Region, 1939* [1]

| Average hourly earnings | Total | Douglas fir region | | | Western pine region | | | | | Redwood region |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Total | Western Washington | Western Oregon | Total | Eastern Washington | Eastern Oregon | California | Mountain States | California |
| Under 25.0 cents | [2] | [2] | [2] | ------- | 0.1 | ------- | 0.1 | 0.1 | [2] | ------- |
| 25.0 and under 27.5 cents | 0.1 | [2] | [2] | 0.1 | .1 | ------- | [2] | .1 | .2 | ------- |
| 27.5 and under 30.0 cents | [2] | [2] | [2] | [2] | [2] | [2] | ------- | ------- | .1 | 0.1 |
| 30.0 and under 32.5 cents | .4 | 0.2 | [2] | .5 | .7 | 0.3 | .1 | .3 | 1.8 | ------- |
| 32.5 and under 35.0 cents | .5 | .1 | [2] | .3 | 1.0 | .2 | [2] | .1 | 3.3 | .2 |
| 35.0 and under 37.5 cents | 1.3 | .2 | 0.1 | .5 | 2.7 | 2.1 | .4 | .3 | 7.3 | .1 |
| 37.5 and under 40.0 cents | .5 | .2 | [2] | .4 | .9 | .3 | .1 | .3 | 2.7 | .2 |
| 40.0 and under 42.5 cents | 1.3 | .4 | [2] | 1.1 | 2.4 | 6.1 | .2 | .9 | 3.6 | .2 |
| 42.5 and under 47.5 cents | 2.5 | 1.5 | .2 | 3.9 | 3.8 | 9.3 | 1.3 | 2.5 | 4.2 | 1.7 |
| 47.5 and under 52.5 cents | 6.0 | 2.7 | .9 | 6.1 | 7.5 | 12.4 | 5.7 | 6.7 | 7.2 | 23.8 |
| 52.5 and under 57.5 cents | 5.7 | 1.8 | 1.1 | 3.3 | 8.5 | 8.1 | 6.8 | 11.7 | 6.9 | 19.1 |
| 57.5 and under 62.5 cents | 10.0 | 4.1 | 1.3 | 9.4 | 16.5 | 18.0 | 17.1 | 13.4 | 17.8 | 12.6 |
| 62.5 and under 67.5 cents | 17.6 | 22.9 | 23.0 | 22.7 | 12.8 | 13.8 | 11.3 | 13.5 | 12.8 | 8.7 |
| 67.5 and under 72.5 cents | 11.7 | 14.4 | 15.4 | 12.4 | 9.0 | 6.8 | 13.0 | 8.8 | 7.1 | 9.2 |
| 72.5 and under 77.5 cents | 9.2 | 11.0 | 11.8 | 9.4 | 7.4 | 5.8 | 9.5 | 6.6 | 7.4 | 7.6 |
| 77.5 and under 82.5 cents | 7.4 | 8.7 | 9.3 | 7.6 | 6.2 | 5.0 | 6.4 | 7.5 | 5.3 | 5.4 |
| 82.5 and under 87.5 cents | 5.0 | 6.1 | 6.5 | 5.4 | 3.9 | 2.9 | 5.7 | 4.2 | 2.7 | 2.8 |
| 87.5 and under 92.5 cents | 5.1 | 6.6 | 7.2 | 5.5 | 3.7 | 2.2 | 4.6 | 4.5 | 3.0 | 2.6 |
| 92.5 and under 100.0 cents | 5.2 | 6.1 | 7.4 | 3.7 | 4.4 | 2.6 | 5.9 | 6.0 | 2.4 | 2.6 |
| 100.0 and under 110.0 cents | 4.8 | 6.2 | 7.6 | 3.7 | 3.5 | 1.8 | 3.6 | 6.3 | 1.7 | 1.5 |
| 110.0 and under 120.0 cents | 2.4 | 3.1 | 3.8 | 1.8 | 1.9 | .9 | 2.7 | 2.4 | 1.2 | .5 |
| 120.0 and under 130.0 cents | 1.4 | 1.7 | 2.1 | .9 | 1.3 | .7 | 2.4 | 1.3 | .6 | .3 |
| 130.0 and under 140.0 cents | .9 | 1.0 | 1.2 | .5 | .8 | .2 | 1.4 | 1.3 | .3 | .5 |
| 140.0 and under 150.0 cents | .4 | .5 | .6 | .3 | .2 | .1 | .5 | .3 | .1 | .1 |
| 150.0 cents and over | .6 | .5 | .5 | .5 | .7 | .4 | 1.2 | .9 | .3 | .2 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of production units | 514 | 218 | 121 | 97 | 273 | 56 | 57 | 78 | 82 | 23 |
| Number of workers | 34,655 | 17,342 | 11,377 | 6,055 | 15,363 | 2,444 | 3,799 | 4,533 | 4,587 | 1,860 |
| Average hourly earning | $0.727 | $0.773 | $0.808 | $0.715 | $0.689 | $0.627 | $0.754 | $0.731 | $0.623 | $0.637 |

[1] The data presented in this table have not been adjusted, and do not reflect the influence of the 30-cent minimum wage.
[2] Less than a tenth of 1 percent.

*Earnings in the North.*—The survey in the North involved 22,741 workers employed in 609 production units. In the late summer of 1939 these workers earned, on the average, 46.4 cents per hour (see table 6). Although average hourly earnings of individual workers ranged from under 25.0 cents to over $1.50, the distribution of workers shows considerable concentration around the average. Over one-fourth of the workers (28.1 percent) were included in the 10-cent range from 30.0 to 40.0 cents; nearly half of the workers had average hourly earnings of from 40.0 to 62.5 cents. Nearly one-sixth of the workers earned 62.5 cents per hour and over, and fully one-tenth earned under 30.0 cents.

TABLE 6.—*Distribution of Workers in Lumber and Timber Products Industry in the North, by Average Hourly Earnings and Branch of Industry, 1939* [1]

| Average hourly earnings (in cents) | Total | | | Branch (percentage distribution) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of workers | Simple percentage | Cumulative percentage | Logging | Sawmilling | Surfacing | Custom-millwork manufacture | Stock-millwork manufacture | Hardwood flooring manufacture | Hardwood dimension-stock manufacture | Cooperage-stock manufacture | Wooden-box manufacture |
| Under 25.0 | 130 | 0.6 | 0.6 | 1.1 | 0.5 | 2.9 | 0.4 | ------ | ------ | 4.8 | 3.3 | 0.3 |
| 25.0 and under 27.5 | 1,703 | 7.5 | 8.1 | 14.3 | 8.2 | 5.9 | 1.2 | 1.0 | ------ | 6.1 | 32.4 | 14.4 |
| 27.5 and under 30.0 | 647 | 2.8 | 10.9 | 6.3 | 3.6 | 1.8 | .6 | .4 | ------ | 5.1 | 8.1 | 4.5 |
| 30.0 and under 32.5 | 1,988 | 8.7 | 19.6 | 11.3 | 11.4 | 7.6 | 3.5 | 3.9 | 15.5 | 20.3 | 18.0 | 10.2 |
| 32.5 and under 35.0 | 1,095 | 4.8 | 24.5 | 10.0 | 5.3 | 4.3 | .7 | 1.7 | 8.6 | 6.9 | 5.5 | 6.1 |
| 35.0 and under 37.5 | 1,930 | 8.5 | 32.9 | 12.0 | 11.2 | 7.5 | 4.2 | 4.6 | 9.4 | 9.7 | 2.6 | 10.8 |
| 37.5 and under 40.0 | 1,391 | 6.1 | 39.1 | 8.6 | 8.6 | 8.7 | 1.6 | 2.9 | 13.8 | 5.1 | 2.9 | 6.3 |
| 40.0 and under 42.5 | 2,680 | 11.8 | 50.9 | 10.0 | 15.9 | 24.6 | 7.6 | 11.1 | 19.2 | 9.4 | 5.5 | 8.3 |
| 42.5 and under 47.5 | 2,757 | 12.2 | 63.0 | 11.2 | 14.8 | 17.2 | 7.1 | 14.2 | 14.7 | 13.5 | 4.8 | 10.5 |
| 47.5 and under 52.5 | 2,100 | 9.2 | 72.2 | 5.6 | 8.6 | 7.4 | 10.3 | 12.5 | 7.4 | 8.2 | 8.1 | 9.5 |
| 52.5 and under 57.5 | 1,460 | 6.4 | 78.6 | 3.9 | 3.3 | 3.2 | 9.0 | 12.2 | 4.6 | 3.1 | 1.8 | 5.7 |
| 57.5 and under 62.5 | 1,233 | 5.4 | 84.1 | 2.6 | 2.4 | 2.3 | 10.9 | 8.9 | 1.8 | 2.6 | 2.9 | 4.6 |
| 62.5 and under 67.5 | 947 | 4.2 | 88.2 | 1.6 | 1.7 | 1.9 | 8.5 | 6.8 | 3.3 | 1.5 | .7 | 4.0 |
| 67.5 and under 72.5 | 740 | 3.3 | 91.5 | .6 | 1.1 | 1.6 | 6.9 | 6.8 | .9 | 1.3 | 1.5 | 2.0 |
| 72.5 and under 77.5 | 603 | 2.7 | 94.1 | .4 | 1.2 | .8 | 7.8 | 4.1 | .2 | .8 | .7 | 1.3 |
| 77.5 and under 82.5 | 309 | 1.4 | 95.5 | .2 | .7 | 1.2 | 4.1 | 1.7 | .4 | .3 | .4 | .6 |
| 82.5 and under 87.5 | 303 | 1.3 | 96.8 | .1 | .4 | .6 | 4.5 | 2.1 | ------ | ------ | ------ | .4 |
| 87.5 and under 92.5 | 176 | .8 | 97.6 | .2 | .3 | .2 | 3.0 | .7 | ------ | ------ | ------ | .3 |
| 92.5 and under 100.0 | 93 | .4 | 98.0 | ------ | .2 | .2 | 1.5 | .4 | .1 | 1.3 | .4 | .1 |
| 100.0 and under 110.0 | 249 | 1.1 | 99.1 | ------ | .3 | .1 | 3.2 | 2.5 | .1 | ------ | ------ | .1 |
| 110.0 and under 120.0 | 144 | .6 | 99.7 | ------ | .1 | ------ | 2.3 | 1.3 | ------ | ------ | ------ | (2) |
| 120.0 and under 130.0 | 27 | .1 | 99.8 | ------ | .1 | ------ | .4 | .1 | ------ | ------ | .4 | ------ |
| 130.0 and under 140.0 | 23 | .1 | 99.9 | ------ | (2) | ------ | .5 | (2) | ------ | ------ | ------ | ------ |
| 140.0 and under 150.0 | 7 | (2) | 99.9 | ------ | ------ | ------ | .1 | .1 | ------ | ------ | ------ | (2) |
| 150.0 and over | 6 | (2) | 100.0 | ------ | .1 | ------ | .1 | ------ | ------ | ------ | ------ | ------ |
| Total | ------ | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of production units | | 609 | | 90 | 159 | 43 | 142 | 60 | 16 | 16 | 11 | 72 |
| Number of workers | | 22,741 | | 3,087 | 5,065 | 987 | 3,651 | 4,315 | 940 | 392 | 272 | 4,032 |
| Average hourly earnings | | $0.464 | | $0.376 | $0.413 | $0.418 | $0.606 | $0.545 | $0.415 | $0.395 | $0.351 | $0.415 |

[1] The data presented in this table have not been adjusted and do not reflect the influence of the 30-cent minimum wage.
[2] Less than a tenth of 1 percent.

Average hourly earnings by branch of the industry in this region showed considerable variation from the average for the industry as a whole. Cooperage-stock production provided the lowest average hourly earnings (35.1 cents), while workers in custom-and stock-millwork manufacturing earned 60.6 and 54.5 cents per hour, respectively. Custom- and stock-millwork production was relatively more important in the North than in the West; about one-third of all workers in the sample were employed in these two branches.

In the late summer of 1939 more than two-fifths (43.8 percent) of the workers in the small cooperage-stock branch and more than a fifth (21.7 percent) of the workers in logging camps earned less than 30.0 cents an hour. Fully one-fourth of the workers in custom-millwork and nearly one-fifth in stock-millwork production earned from 62.5 to 82.5 cents; nearly one-sixth in custom millwork earned 82.5 cents and over.

Average hourly earnings in the subregions which comprise the North varied from 40.3 cents in the New England States to 54.6 cents per hour in the Middle Atlantic States; the latter region, with average hourly earnings 7.4 cents higher than the highest of the other regions, was in a class by itself (table 7). In the New England States over a fifth of the workers earned under 30.0 cents per hour. In the Middle Atlantic States about one-seventh earned 82.5 cents and over per hour.

TABLE 7.—*Percentage Distribution of Workers in Lumber and Timber Products Industry in the North, by Average Hourly Earnings and Region, 1939* [1]

| Average hourly earnings | Total | Prairie States | Lake States | East Central States | Middle Atlantic States | New England States |
|---|---|---|---|---|---|---|
| Under 25.0 cents | 0.6 | 0.4 | 0.4 | 0.3 | 1.4 | 0.5 |
| 25.0 and under 27.5 cents | 7.5 | 13.7 | 1.4 | 4.9 | 6.9 | 15.6 |
| 27.5 and under 30.0 cents | 2.8 | 2.4 | 2.2 | 2.2 | 1.8 | 5.9 |
| 30.0 and under 32.5 cents | 8.7 | 5.6 | 5.7 | 14.6 | 5.6 | 12.6 |
| 32.5 and under 35.0 cents | 4.8 | 2.4 | 4.6 | 5.4 | 4.1 | 6.9 |
| 35.0 and under 37.5 cents | 8.5 | 4.6 | 11.6 | 8.9 | 5.4 | 9.2 |
| 37.5 and under 40.0 cents | 6.1 | 3.2 | 8.6 | 6.8 | 3.1 | 6.6 |
| 40.0 and under 42.5 cents | 11.8 | 10.2 | 18.4 | 9.6 | 6.9 | 9.8 |
| 42.5 and under 47.5 cents | 12.2 | 10.5 | 16.2 | 11.9 | 9.4 | 9.7 |
| 47.5 and under 52.5 cents | 9.2 | 12.0 | 10.0 | 8.0 | 9.7 | 6.9 |
| 52.5 and under 57.5 cents | 6.4 | 10.3 | 5.0 | 7.0 | 6.7 | 4.6 |
| 57.5 and under 62.5 cents | 5.4 | 8.5 | 4.4 | 5.7 | 6.8 | 3.0 |
| 62.5 and under 67.5 cents | 4.2 | 5.8 | 3.4 | 3.6 | 6.4 | 2.6 |
| 67.5 and under 72.5 cents | 3.3 | 3.9 | 3.5 | 2.6 | 4.0 | 2.3 |
| 72.5 and under 77.5 cents | 2.7 | 3.7 | 2.6 | 2.0 | 4.1 | 1.4 |
| 77.5 and under 82.5 cents | 1.4 | 1.2 | .9 | 1.2 | 3.0 | .9 |
| 82.5 and under 87.5 cents | 1.3 | .5 | .7 | 1.5 | 3.9 | .3 |
| 87.5 and under 92.5 cents | .8 | .6 | .2 | .5 | 2.4 | .5 |
| 92.5 and under 100.0 cents | .4 | .2 | .1 | .4 | 1.2 | .3 |
| 100.0 and under 110.0 cents | 1.1 | .2 | .1 | 2.5 | 2.7 | .3 |
| 110.0 and under 120.0 cents | .6 | .1 | [2] | .1 | 3.3 | [2] |
| 120.0 and under 130.0 cents | .1 | ---- | ---- | .1 | .5 | .1 |
| 130.0 and under 140.0 cents | .1 | ---- | ---- | [2] | .5 | [2] |
| 140.0 and under 150.0 cents | [2] | ---- | ---- | .1 | .1 | ---- |
| 150.0 cents and over | [2] | ---- | ---- | .1 | .1 | ---- |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of production units | 609 | 62 | 137 | 113 | 146 | 151 |
| Number of workers | 22,741 | 3,272 | 6,526 | 4,688 | 4,036 | 4,219 |
| Average hourly earnings | $0.464 | $0.472 | $0.451 | $0.463 | $0.546 | $0.403 |

[1] The data presented in this table have not been adjusted and do not reflect the influence of the 30-cent minimum wage.
[2] Less than a tenth of 1 percent.

*Earnings in the South.*—During late 1939 and early 1940, workers in the South earned on the average 34.6 cents per hour. The distribution of individual earnings shows that about half of the workers received exactly 30.0 cents per hour. In practically all cases the wage and hour data for the South were for a pay-roll period after October 24, 1939, and for that reason reflect the wage adjustments to the 30-cent minimum hourly rate which became effective on that date for concerns engaged in interstate commerce. Nevertheless, 6.6 percent of the workers were earning less than 30.0 cents an hour. Presumably most of these were employed in plants that were not engaged in interstate commerce or were not subject to the Fair Labor Standards Act for some other reason. Another one-eighth of the southern

workers earned over 30.0 and under 32.5 cents an hour. Over one-fourth of the workers (27.8 percent) earned from 32.5 to 62.5 cents and only 3.5 percent had earnings of 62.5 cents an hour and over (table 8).

TABLE 8.—*Distribution of Workers in Lumber and Timber Products Industry in the South, by Average Hourly Earnings and Branch of Industry, 1939–40*

| Average hourly earnings (in cents) | Total | | | Branch (percentage distribution) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of workers | Simple percentage | Cumulative percentage | Logging | Sawmilling | Surfacing | Custom-millwork manufacture | Stock-millwork manufacture | Hardwood-flooring manufacture | Hardwood-dimension-stock manufacture | Cooperage-stock manufacture | Wooden-box manufacture |
| Under 15.0 | 220 | 0.5 | 0.5 | 0.4 | 0.6 | 0.6 | 0.5 | 2.1 | ..... | 0.1 | ..... | ..... |
| 15.0 and under 17.5 | 690 | 1.4 | 1.9 | 1.4 | 2.0 | 2.2 | .9 | 1.9 | ..... | ..... | (1) | ..... |
| 17.5 and under 20.0 | 333 | .7 | 2.6 | .4 | .9 | 1.1 | 1.0 | 1.4 | ..... | ..... | 0.7 | (1) |
| 20.0 and under 22.5 | 443 | .9 | 3.5 | .4 | 1.3 | 1.1 | 3.0 | 1.4 | ..... | ..... | .2 | (1) |
| 22.5 and under 25.0 | 173 | .4 | 3.9 | .2 | .4 | .6 | 1.4 | .6 | 0.1 | ..... | .1 | (1) |
| 25.0 and under 27.5 | 1,012 | 2.1 | 6.0 | 1.6 | 2.0 | 3.5 | 9.7 | 4.4 | ..... | .1 | .1 | (1) |
| 27.5 and under 30.0 | 289 | .6 | 6.6 | .8 | .4 | .7 | 1.3 | .9 | .1 | .1 | .2 | 0.8 |
| Exactly 30.0 | 23,763 | 49.7 | 56.1 | 40.8 | 53.2 | 55.8 | 11.9 | 27.4 | 31.3 | 29.0 | 49.2 | 61.7 |
| Over 30.0 and under 32.5 | 5,947 | 12.4 | 68.5 | 14.3 | 12.7 | 12.4 | 3.5 | 9.8 | 16.3 | 11.1 | 12.9 | 11.3 |
| 32.5 and under 35.0 | 3,586 | 7.5 | 76.0 | 10.4 | 6.8 | 5.8 | 3.7 | 4.7 | 14.5 | 8.9 | 8.7 | 7.8 |
| 35.0 and under 37.5 | 2,621 | 5.5 | 81.5 | 7.8 | 4.6 | 4.3 | 7.4 | 7.9 | 10.5 | 7.9 | 4.6 | 4.7 |
| 37.5 and under 40.0 | 1,297 | 2.7 | 84.2 | 4.1 | 2.4 | 2.0 | 1.8 | 3.2 | 4.4 | 4.7 | 2.3 | 2.4 |
| 40.0 and under 42.5 | 1,534 | 3.2 | 87.4 | 4.5 | 2.5 | 2.2 | 7.6 | 6.7 | 4.2 | 8.8 | 3.3 | 2.2 |
| 42.5 and under 47.5 | 1,652 | 3.4 | 90.8 | 4.9 | 2.9 | 2.0 | 7.6 | 6.9 | 4.9 | 7.3 | 4.0 | 2.7 |
| 47.5 and under 52.5 | 1,233 | 2.6 | 93.4 | 3.2 | 1.6 | 1.5 | 9.2 | 5.8 | 2.7 | 7.2 | 4.9 | 2.4 |
| 52.5 and under 57.5 | 789 | 1.6 | 95.0 | 2.2 | 1.1 | 1.1 | 5.9 | 4.1 | 2.2 | 3.9 | 2.9 | 1.0 |
| 57.5 and under 62.5 | 644 | 1.3 | 96.4 | .9 | .9 | .9 | 6.2 | 2.7 | 3.9 | 4.1 | 1.4 | 1.0 |
| 62.5 and under 67.5 | 455 | .9 | 97.3 | .8 | .7 | .7 | 3.7 | 2.7 | 2.0 | 2.1 | 1.0 | .6 |
| 67.5 and under 72.5 | 394 | .8 | 98.1 | .4 | .7 | .5 | 3.9 | 2.1 | .6 | 1.1 | 2.0 | .7 |
| 72.5 and under 77.5 | 277 | .6 | 98.7 | .2 | .5 | .3 | 4.6 | 1.0 | 1.3 | .6 | .8 | .3 |
| 77.5 and under 82.5 | 190 | .4 | 99.1 | .2 | .5 | .3 | 2.1 | .8 | .2 | .5 | .4 | .1 |
| 82.5 and under 87.5 | 130 | .3 | 99.4 | (1) | .4 | .2 | 1.4 | .5 | .1 | .4 | .2 | .1 |
| 87.5 and under 92.5 | 112 | .2 | 99.6 | (1) | .3 | .1 | 1.2 | .8 | .4 | 1.0 | .1 | .1 |
| 92.5 and under 100.0 | 65 | .1 | 99.8 | (1) | .2 | .1 | .1 | .1 | ..... | .5 | (1) | .1 |
| 100.0 and under 110.0 | 65 | .1 | 99.9 | .1 | .2 | (1) | .1 | .1 | .3 | .5 | ..... | (1) |
| 110.0 and under 120.0 | 30 | .1 | 99.9 | (1) | .1 | ..... | ..... | ..... | ..... | ..... | ..... | (1) |
| 120.0 and over | 22 | (1) | 100.0 | ..... | .1 | (1) | .3 | ..... | ..... | .1 | ..... | ..... |
| Total | ..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of production units | | 1,006 | | 166 | 328 | 300 | 67 | 16 | 22 | 18 | 35 | 54 |
| Number of workers | | 47,966 | | 6,773 | 17,510 | 9,892 | 1,688 | 772 | 1,709 | 1,426 | 2,001 | 6,195 |
| Average hourly earnings | | $0.346 | | $0.344 | $0.339 | $0.324 | $0.436 | $0.378 | $0.377 | $0.406 | $0.362 | $0.340 |

[1] Less than a tenth of 1 percent.

Average hourly earnings by branch of the lumber and timber products industry in the South varied from 32.4 cents in surfacing to 43.6 cents in custom-millwork production. Three of the nine branches in the South—logging, sawmilling, and surfacing—which had average hourly earnings of 34.4 cents, 33.9 cents, and 32.4 cents, respectively, accounted for seven-tenths of the workers in the sample for this region. Of the other three-tenths, about half were in the wooden-box branch which provided average hourly earnings of 34.0 cents per hour.

In all branches of the industry in the South, a substantial proportion of the workers received exactly 30.0 cents per hour. The proportion of workers who had such earnings was highest (61.7 percent) in the production of wooden boxes and lowest (11.9 percent) in the custom-millwork branch. Almost a fifth of the workers in the latter branch,

on the other hand, earned less than 30.0 cents; this fact undoubtedly reflects the local character of the market for the product of this branch. A sixth of the employees in custom-millwork units—the highest proportion of any branch—earned more than 62.5 cents an hour.

On the whole, geographic variations in average hourly earnings were not very pronounced in the South. Average hourly earnings varied from 30.5 cents in Georgia to 43.5 cents in Kentucky (table 9). In general, earnings were somewhat higher in the border States than in the "deep South." Only about a fourth of the workers in Kentucky but nearly two-thirds of the workers in Alabama earned exactly 30.0 cents. In Georgia a high proportion of all workers (20.6 percent) earned less than 30.0 cents. Relatively few workers in any State had earnings of 62.5 cents and over.

TABLE 9.—*Percentage Distribution of Workers in Lumber and Timber Products Industry in the South, by Average Hourly Earnings and State, 1939–40*

| Average hourly earnings (cents) | Total South | Virginia | Kentucky | Tennessee | North Carolina | South Carolina | Georgia | Florida | Alabama | Mississippi | Louisiana | Texas | Arkansas and Oklahoma |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Under 15.0 | 0.5 | (1) | 0.1 | 0.1 | 0.4 | 1.6 | 4.1 | 0.4 | 0.4 | 0.1 | 0.1 | (1) | ------ |
| 15.0, under 17.5 | 1.4 | 0.1 | .1 | .7 | 2.6 | 3.5 | 5.6 | 2.9 | .8 | .5 | 1.0 | 1.0 | (1) |
| 17.5, under 20.0 | .7 | .2 | .2 | .3 | .8 | 1.0 | 3.3 | .8 | .3 | .5 | .7 | .6 | 0.5 |
| 20.0, under 22.5 | .9 | .1 | ------ | .1 | .4 | .6 | 4.0 | 1.8 | .7 | .6 | 1.0 | 1.8 | .3 |
| 22.5, under 25.0 | .4 | .2 | ------ | .1 | .3 | .3 | 1.1 | .3 | .2 | .3 | .6 | .6 | .2 |
| 25.0, under 27.5 | 2.1 | 1.4 | .2 | .5 | 4.7 | 1.6 | 1.7 | 1.0 | .7 | .8 | 2.1 | 7.6 | 1.2 |
| 27.5, under 30.0 | .6 | .2 | ------ | .5 | .7 | .3 | .8 | .3 | .4 | 1.4 | .6 | .8 | .4 |
| Exactly 30.0 | 49.7 | 47.3 | 24.4 | 29.7 | 59.6 | 57.9 | 56.7 | 57.0 | 63.2 | 55.2 | 42.3 | 38.1 | 42.6 |
| Over 30.0, under 32.5 | 12.4 | 14.0 | 11.3 | 17.7 | 9.8 | 11.5 | 5.8 | 7.8 | 11.4 | 11.2 | 14.1 | 13.0 | 17.9 |
| 32.5, under 35.0 | 7.5 | 7.1 | 3.7 | 8.7 | 5.0 | 4.2 | 3.8 | 5.9 | 4.7 | 7.1 | 11.9 | 10.3 | 10.4 |
| 35.0, under 37.5 | 5.5 | 6.0 | 14.0 | 7.6 | 4.1 | 3.2 | 2.7 | 4.4 | 5.4 | 4.5 | 6.0 | 6.0 | 6.8 |
| 37.5, under 40.0 | 2.7 | 1.9 | 4.8 | 3.6 | 1.6 | 1.7 | 1.7 | 2.4 | 2.0 | 2.7 | 3.0 | 3.7 | 3.8 |
| 40.0, under 42.5 | 3.2 | 3.7 | 4.6 | 6.1 | 2.1 | 2.2 | 1.2 | 3.3 | 2.3 | 2.7 | 3.8 | 4.0 | 3.6 |
| 42.5, under 47.5 | 3.4 | 2.9 | 6.9 | 6.6 | 2.3 | 2.9 | 1.7 | 3.1 | 2.4 | 3.1 | 4.2 | 4.0 | 3.8 |
| 47.5, under 52.5 | 2.6 | 2.8 | 6.9 | 5.6 | 1.7 | 1.9 | 1.5 | 2.1 | 2.1 | 2.7 | 2.0 | 2.8 | 2.7 |
| 52.5, under 57.5 | 1.6 | 1.7 | 4.3 | 3.0 | 1.4 | 1.4 | 1.0 | 1.7 | .8 | 1.6 | 1.6 | 1.7 | 1.8 |
| 57.5, under 62.5 | 1.3 | 2.5 | 3.9 | 3.1 | .7 | 1.1 | 1.0 | 1.1 | .6 | 1.5 | 1.2 | .9 | 1.4 |
| 62.5, under 67.5 | .9 | 1.4 | 2.6 | 1.9 | .5 | .9 | .9 | 1.1 | .3 | .8 | 1.2 | .7 | .8 |
| 67.5, under 72.5 | .8 | 2.2 | 4.1 | .9 | .6 | .8 | .7 | .8 | .4 | .9 | .6 | .7 | .3 |
| 72.5, under 77.5 | .6 | 1.4 | 4.7 | 1.2 | .3 | .3 | .2 | .5 | .1 | .4 | .4 | .5 | .5 |
| 77.5, under 82.5 | .4 | 1.5 | 1.0 | .4 | .1 | .2 | (1) | .3 | .2 | .4 | .6 | .5 | .2 |
| 82.5, under 87.5 | .3 | .7 | 1.0 | .3 | .2 | .2 | .2 | .2 | .2 | .2 | .3 | .2 | .2 |
| 87.5, under 92.8 | .2 | .2 | .6 | .6 | (1) | .1 | .2 | .2 | .2 | .2 | .2 | .3 | .4 |
| 92.5, under 100.0 | .1 | .2 | .2 | .2 | .1 | .2 | .1 | .1 | .1 | .2 | .2 | .1 | (1) |
| 100.0, under 110.0 | .1 | .2 | .2 | .3 | (1) | .2 | ------ | .2 | .1 | .2 | .1 | .1 | .2 |
| 110.0, under 120.0 | .1 | (1) | .1 | .1 | ------ | .1 | ------ | .2 | ------ | .1 | .1 | (1) | (1) |
| 120.0 and over | (1) | .1 | .1 | .1 | ------ | .1 | ------ | .1 | ------ | .1 | .1 | ------ | (1) |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of production units | 1,006 | 65 | 31 | 47 | 114 | 65 | 75 | 80 | 119 | 102 | 107 | 90 | 111 |
| Number of workers | 47,966 | 2,563 | 1,225 | 2,638 | 4,535 | 3,162 | 2,409 | 4,550 | 4,613 | 6,138 | 5,453 | 4,402 | 6,278 |
| Average hourly earnings | $0.346 | $0.376 | $0.435 | $0.383 | $0.322 | $0.329 | $0.305 | $0.339 | $0.330 | $0.348 | $0.350 | $0.342 | $0.352 |

[1] Less than a tenth of 1 percent.

## *Earnings in the Manufacture of Veneer and Veneer Products*

While veneer and plywood are timber products in the strict sense, they are mainly manufactured in independent mills or in sawmills.

In recognition of the special character of the mills producing veneer, plywood, and veneer baskets, such mills have been excluded from the "lumber and timber products industry," as defined for the purpose of the general survey.

The basic process which is common to all three products is the manufacture of veneer. Veneer is a thin sheet of wood often used to surface another wood, or to produce plywood by gluing two or more sheets together (usually with the grain of each layer at right angles to that of the adjacent layer). Veneer is also used in the manufacture of baskets, especially fruit and vegetable baskets. The data here presented for the veneer branch of the industry relate only to establishments which are primarily engaged in the manufacture of veneer for sale. They do not include the veneer departments of plywood mills, for example, nor of veneer-basket mills, nor of any other wood-reworking mills.

### THE UNITED STATES AS A WHOLE

Hourly earnings in the manufacture of veneer, plywood, and veneer baskets in the United States as a whole averaged 37.3 cents, 49.0 cents, and 34.2 cents, respectively (see table 10). The figures for northern workers included in these totals have been adjusted to take account of changes due to the 30-cent minimum wage; the western workers included in the sample consist almost exclusively of plywood workers, none of whom earned less than 30.0 cents, and data for the southern workers were collected after the 30-cent minimum came into effect and consequently did not require adjustment.

The distributions of individual earnings indicate a decided concentration (from over a third of the workers in the plywood branch to over two-thirds in the veneer-basket branch) in the class interval 30.0 and under 32.5 cents per hour. Although this concentration results in part from the adjustment mentioned above, there is little doubt that the adjusted figures depict with reasonable accuracy the wage distributions after the effective date of the 30-cent minimum wage. In the 10-cent range from 32.5 to 42.5 cents were included over a sixth of the workers in the plywood branch, nearly one-fourth of the workers in veneer manufacture, and one-fifth of the workers engaged in the production of baskets. Over one-fourth of the workers in the plywood branch, but few workers in the veneer and veneer-basket branches, had average hourly earnings of 62.5 cents and over.

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TABLE 10.—*Distribution of Workers in the Veneer, Plywood, and Veneer-Basket Branches, by Average Hourly Earnings, 1939–40*

[Adjusted for 30-cent minimum wage [1]]

| Average hourly earnings | Veneer | | Plywood | | Veneer baskets | |
|---|---|---|---|---|---|---|
| | Number of workers | Percent of workers | Number of workers | Percent of workers | Number of workers | Percent of workers |
| Under 30.0 cents | 3 | 0.1 | 5 | 0.1 | 20 | 0.6 |
| 30.0 and under 32.5 cents | 1,233 | 55.4 | 2,207 | 35.8 | 2,132 | 69.3 |
| 32.5 and under 35.0 cents | 159 | 7.1 | 246 | 4.0 | 241 | 7.8 |
| 35.0 and under 37.5 cents | 112 | 5.0 | 337 | 5.5 | 217 | 7.0 |
| 37.5 and under 40.0 cents | 99 | 4.4 | 285 | 4.6 | 86 | 2.8 |
| 40.0 and under 42.5 cents | 157 | 7.1 | 209 | 3.4 | 102 | 3.3 |
| 42.5 and under 47.5 cents | 176 | 7.9 | 336 | 5.4 | 77 | 2.5 |
| 47.5 and under 52.5 cents | 117 | 5.3 | 175 | 2.8 | 61 | 2.0 |
| 52.5 and under 57.5 cents | 53 | 2.4 | 168 | 2.7 | 65 | 2.1 |
| 57.5 and under 62.5 cents | 35 | 1.6 | 135 | 2.2 | 36 | 1.2 |
| 62.5 and under 67.5 cents | 20 | .9 | 735 | 11.9 | 15 | .5 |
| 67.5 and under 72.5 cents | 20 | .9 | 584 | 9.5 | 7 | .2 |
| 72.5 and under 77.5 cents | 11 | .5 | 178 | 2.9 | 7 | .2 |
| 77.5 and under 82.5 cents | 13 | .6 | 184 | 3.0 | 5 | .2 |
| 82.5 and under 87.5 cents | 6 | .3 | 81 | 1.3 | 2 | .1 |
| 87.5 and under 92.5 cents | 1 | (2) | 94 | 1.5 | 3 | .1 |
| 92.5 and under 100.0 cents | 5 | .2 | 115 | 1.9 | 2 | .1 |
| 100.0 cents and over | 6 | .3 | 92 | 1.5 | 1 | (2) |
| Number of production units | 39 | | 47 | | 33 | |
| Number of workers | 2,226 | 100.0 | 6,166 | 100.0 | 3,079 | 100.0 |
| Average hourly earnings | $0.373 | | $0.490 | | $0.342 | |

[1] In this table data for the West and North, which were collected prior to October 24, 1939, the effective date of the 30-cent minimum wage, have been adjusted to reflect the changes resulting from the 30-cent minimum. Data for the South were collected subsequent to October 24, 1939, and consequently reflect without adjustment the changes resulting from the 30-cent minimum.

[2] Less than a tenth of 1 percent.

## GEOGRAPHICAL VARIATIONS

Regional variations of average hourly earnings in the veneer, plywood, and veneer-basket branches involve primarily the North and the South. In the West the production of veneer and veneer baskets is of minor importance. Plywood, however, is manufactured in considerable quantities in the West, and the sample included 2,053 workers engaged in this industry. These workers earned an average of 73.2 cents an hour at the time of the survey (table 11). The distribution of individual earnings in this branch shows that none of the workers earned less than 47.5 cents per hour. Fully a third of all workers in plywood production in the West earned 62.5 and under 67.5 cents an hour. Somewhat more than a fourth earned 67.5 and under 72.5 cents per hour, while over a third had average hourly earnings of more than 72.5 cents.

TABLE 11.—*Percentage Distribution of Workers in Veneer, Plywood, and Veneer-Basket Branches in the West and North, by Average Hourly Earnings, 1939* [1]

| Average hourly earnings | West | North | | |
|---|---|---|---|---|
| | Plywood | Veneer | Plywood | Veneer baskets [2] |
| Under 25.0 cents | | | | 0.6 |
| 25.0 and under 27.5 cents | | 2.8 | 2.7 | 34.3 |
| 27.5 and under 30.0 cents | | 6.0 | 1.0 | 9.3 |
| 30.0 and under 32.5 cents | | 20.2 | 14.0 | 16.3 |
| 32.5 and under 35.0 cents | | 4.7 | 5.9 | 7.9 |
| 35.0 and under 37.5 cents | | 5.4 | 14.1 | 8.5 |
| 37.5 and under 40.0 cents | | 9.0 | 14.8 | 3.5 |
| 40.0 and under 42.5 cents | | 10.8 | 10.0 | 5.0 |
| 42.5 and under 47.5 cents | | 16.9 | 17.0 | 3.2 |
| 47.5 and under 52.5 cents | 0.1 | 12.0 | 8.2 | 3.3 |
| 52.5 and under 57.5 cents | 1.9 | 3.8 | 6.1 | 4.1 |
| 57.5 and under 62.5 cents | 3.1 | 2.5 | 2.9 | 2.0 |
| 62.5 and under 67.5 cents | 33.6 | 1.3 | 1.4 | .8 |
| 67.5 and under 72.5 cents | 27.0 | 1.6 | .9 | .3 |
| 72.5 and under 77.5 cents | 7.8 | .9 | .3 | .4 |
| 77.5 and under 82.5 cents | 8.6 | 1.3 | .4 | .2 |
| 82.5 and under 87.5 cents | 3.7 | .4 | .2 | |
| 87.5 and under 92.5 cents | 4.4 | | .1 | .1 |
| 92.5 and under 100.0 cents | 5.6 | .1 | | .1 |
| 100.0 and under 110.0 cents | 2.1 | .1 | | .1 |
| 110.0 and under 120.0 cents | 1.7 | .1 | | |
| 120.0 cents and over | .4 | .1 | | |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of production units | 9 | 16 | 14 | 20 |
| Number of workers | 2,053 | 680 | 1,565 | 1,573 |
| Average hourly earnings | $0.732 | $0.417 | $0.414 | $0.338 |

[1] The data in this table have not been adjusted and do not reflect the influence of the 30-cent minimum wage.
[2] Includes 2 plants in the West.

The workers employed in the production of veneer, plywood, and veneer baskets in the North earned on the average 41.7, 41.4, and 33.8 cents, respectively. Although these regional figures have not been adjusted, they show a substantial number of workers earning between 30.0 and 32.5 cents. In veneer production over a fifth of the workers (20.2 percent) were in this earnings class, nearly two-thirds were concentrated in the 30-cent range from 32.5 to 62.5 cents per hour, and only one-eighth of the workers had earnings of 52.5 cents and over. In plywood manufacture in the North, 14.0 percent earned 30.0 to 32.5 cents, over two-fifths earned from 32.5 to 42.5 cents, while a fourth had earnings which were included in the 10-cent range from 42.5 to 52.5 cents per hour. In veneer-basket manufacture, where the average hourly earnings were lowest, over two-fifths of the workers earned under 30 cents per hour, one-sixth earned 30.0 to 32.5 cents, while nearly a fourth were included in the 10-cent range from 32.5 to 42.5 cents per hour.

In the South average hourly earnings in these three branches showed little variation, the range being from 32.2 cents in veneer-basket production to 35.1 cents in the manufacture of veneer (table 12). Over half of the workers in each of the three branches earned exactly 30.0 cents, while considerable proportions earned more than 30.0 but

less than 32.5 cents. The contrast of these earnings with those in the North is all the more striking when it is remembered that the unadjusted figures for the North do not reflect the influence of the 30-cent minimum wage.

TABLE 12.—*Percentage Distribution of Workers in Veneer, Plywood, and Veneer-Basket Branches in the South, by Average Hourly Earnings, 1939–40*

| Average hourly earnings | Veneer | Plywood | Veneer baskets |
|---|---|---|---|
| 20.0 and under 22.5 cents | ---------- | (1) | ---------- |
| 22.5 and under 25.0 cents | ---------- | ---------- | 0.6 |
| 25.0 and under 27.5 cents | 0.1 | ---------- | .1 |
| 27.5 and under 30.0 cents | .1 | 0.2 | .6 |
| Exactly 30.0 cents | 57.3 | 55.8 | 62.2 |
| Over 30.0 and under 32.5 cents | 9.6 | 20.2 | 16.1 |
| 32.5 and under 35.0 cents | 8.2 | 6.1 | 7.8 |
| 35.0 and under 37.5 cents | 4.9 | 4.6 | 5.6 |
| 37.5 and under 40.0 cents | 2.5 | 2.0 | 2.1 |
| 40.0 and under 42.5 cents | 5.4 | 2.1 | 1.6 |
| 42.5 and under 47.5 cents | 4.0 | 2.7 | 1.7 |
| 47.5 and under 52.5 cents | 2.3 | 1.7 | .6 |
| 52.5 and under 57.5 cents | 1.7 | 1.3 | .1 |
| 57.5 and under 62.5 cents | 1.2 | 1.1 | .3 |
| 62.5 and under 67.5 cents | .7 | .8 | .1 |
| 67.5 and under 72.5 cents | .6 | .6 | .1 |
| 72.5 and under 77.5 cents | .3 | .5 | .1 |
| 77.5 and under 82.5 cents | .3 | (1) | .1 |
| 82.5 and under 87.5 cents | .2 | .1 | .1 |
| 87.5 and under 92.5 cents | .1 | (1) | .1 |
| 92.5 and under 100.0 cents | .3 | (1) | ---------- |
| 100.0 cents and over | .2 | .2 | ---------- |
| Total | 100.0 | 100.0 | 100.0 |
| Number of production units | 23 | 24 | 13 |
| Number of workers | 1,546 | 2,548 | 1,506 |
| Average hourly earnings | $0.351 | $0.339 | $0.322 |

[1] Less than a tenth of 1 percent.

# HOURLY EARNINGS IN MAKING OF WOOD TURNINGS, SHAPES, AND OTHER WOOD PRODUCTS [1]

## *Summary*

THE general average hourly earnings of workers in plants manufacturing wood turnings, shapes, and miscellaneous wood products in February 1941 amounted to 45.5 cents. Well over one-half of the workers received 40 cents or more an hour and roughly three-fourths received 35 cents an hour or more. Less than 1 percent of the workers failed to earn as much as 30 cents an hour, the legal minimum under the Fair Labor Standards Act. Substantial variations in earnings existed among the various sections of the country as well as among plants manufacturing different products.

## *Definition and Size of Industry*

With the introduction of mass production into numerous industries using wood products, there has developed a demand for large quantities of standardized wooden parts. The wood-using industries have found it advantageous to purchase these parts from firms specializing in their production. As a result there has developed within the lumber industry a rather large group of specialty firms engaged in the manufacture of semifinished and finished wood products, such as handles, furniture turnings and shapes, wooden dishes, ladders, and so forth.

The Census of Manufactures includes such plants in the general group of "wood products not elsewhere classified." From the standpoint of value, finished handles constitute the most important product of this group, accounting for approximately one-sixth of the total output. Next in importance are woodenware, furniture turnings and shapes, textile-machinery turnings and shapes, wood novelties and specialties, vehicle stock, and ladders and parts. Scaffolding equipment, toys and toy parts, unfinished games and game equipment, wood flour, and wooden beads are products of minor importance in this industry.

The "wood products not elsewhere classified" industry is one of the smaller industries in the forest-products group. Some 20,000 wage earners, in approximately 900 establishments, were employed in the industry in 1939. These workers earned in the neighborhood of $18,000,000. Their output had an aggregate value of $69,000,000. Wages represented one-fourth of the total value of product and well over two-fifths of the total value added by manufacture. Also em-

[1] Prepared by Victor S. Baril, assisted by George E. Votava, of the Bureau's Division of Wage and Hour Statistics.

ployed in this industry were 2,400 salaried workers, who were paid a total of about $5,000,000 in wages.

While plants are found in some 36 States, the industry is to a considerable extent concentrated in a few areas. Fully four-fifths of the plants and seven-tenths of the workers surveyed were in the North; more than one-third of the northern wage earners were in the New England States, one-fifth were in the New York-Pennsylvania area, and well over one-fourth were in the East Central States. In the South, more than one-half of the workers were in Tennessee and one-sixth were in Arkansas.

This is a small-plant industry. Of the 748 plants reporting any wage earners in 1937 only 40 had more than 100 workers and only 115 employed more than 50 workers. On the other hand, 166 had between 21 and 50 workers, 276 had between 6 and 20 workers, and 191 had less than 6 workers.

### *Scope and Method of Survey*

The purpose of the present survey was to provide basic information on the wage structure of the industry, to be used by an industry committee in recommending minimum-wage rates, in accordance with the provisions of the Fair Labor Standards Act. This small industry was not included in the comprehensive survey of wages and hours in the lumber and timber products industries which the Bureau made during the last 4 months of 1939 and the first quarter of 1940.

The Bureau did not attempt to cover all products of the industry in its survey. The survey included only finished handles, furniture turnings and shapes, ladders and parts, textile-machinery turnings and shapes, vehicle stock, and woodenware. So far as can be ascertained, the value of the products excluded was equal to only one-eighth or less of the industry total as classified by the census.

The products covered in the present survey may be classified into three broad groups—finished wood handles, wood turnings and shapes, and miscellaneous other wood products. The wood-handle group includes all finished handles, whether for striking tools, farming tools, shovels, brooms, brushes, mops, or baskets, or for other purposes. Included in the wood turnings and shapes group are table legs, spindles, shuttles, bobbins, spokes, and other parts for furniture, textile machinery, vehicle stock, and so forth. Most of such items are produced on lathes or other special woodworking machines. The miscellaneous group comprises wooden dishes, skewers, clothespins and other woodenware, ladders and parts, and similar articles.

Unlike most studies of the Bureau of Labor Statistics, which are based on data obtained by field representatives directly from company records, the present study is based on returns from questionnaires mailed to employers in the industry.

Questionnaires were sent to 720 firms which were believed to be engaged in the manufacture of the specific wood products covered in the present survey. Replies were received from 413 of the 720 firms circularized. Only 197 of the returns, however, were usable. A total of 8,893 workers were employed in these establishments. The remaining returns were, in most cases, from firms not primarily engaged in the manufacture of the specific wood products included in the present survey. The actual returns by product group and by region appear in table 1.

TABLE 1.—*Establishments and Workers Represented by Usable Returns From Mail Questionnaire, by Region and by Type of Dominant Product*

| Region | All products | | Finished wood handles | | Wood turnings and shapes | | Miscellaneous products | |
|---|---|---|---|---|---|---|---|---|
| | Number of plants | Number of workers | Number of plants | Number of workers | Number of plants | Number of workers | Number of plants | Number of workers |
| United States | 197 | 8,893 | 71 | 3,284 | 63 | 2,748 | 63 | 2,861 |
| New England | 66 | 3,040 | 12 | 457 | 34 | 1,815 | 20 | 768 |
| Middle Atlantic States | 27 | 1,197 | 6 | 606 | 9 | 319 | 12 | 272 |
| North Central States | 50 | 2,593 | 19 | 911 | 12 | 327 | 19 | 1,355 |
| Far West | 12 | 441 | 4 | 128 | | | 8 | 313 |
| Southern Border States [1] | 22 | 903 | 18 | 684 | 4 | 219 | | |
| Other Southern States | 20 | 719 | 12 | 498 | 4 | 68 | 4 | 153 |

[1] Kentucky, Tennessee, and Virginia.

The usable returns represented slightly less than one-fourth of the establishments and not far from one-half of the workers in the industry in 1939. A greater proportion of the larger firms than of the smaller firms, however, filed returns. Comparing the actual returns with the census figures for 1937, the latest year for which a classification of establishments by size is available, it appears that returns were received from about two-fifths of the firms employing 21 or more workers, about one-fifth of those employing between 6 and 20 workers, and roughly one-eighth of those employing less than 6 workers. In order that the data for the various sizes of mills might be combined on a comparable basis, therefore, a weight of 3 was assigned to plants having less than 6 workers, a weight of 2 to plants having between 6 and 20 workers, and a weight of 1 to plants with 21 workers or more. Adjusted in this manner, the sample is believed to represent dependably the total number of plants and workers in the divisions of the industry covered in the present survey.

The amount of information obtained was, of necessity, much more limited than that obtained in regular field surveys of the Bureau. Each employer was asked to report, for one representative pay-roll period nearest to February 15, 1941, the total number of workers

employed in his plant, the total hours paid for, and the total wages paid; and for the same period to indicate the number of workers having hourly earnings within certain specified wage brackets. For purposes of classification the employer was also asked to indicate the approximate percentage of his total dollar output in 1940 which came within the specific product groups covered in the survey. No information was obtained regarding sex, occupation, or skill of the workers.

The aggregate hours reported were the hours paid for, rather than the hours actually worked.[2] Likewise the wages reported were the total wages paid, including any extra earnings for overtime work at punitive rates of pay as well as any amounts deducted for social security, group insurance, and so forth. On the basis of these aggregates, it was possible to compute average hourly earnings for hours worked at regular rates of pay. The distributions of individual earnings are also based on earnings at regular rates of pay.

Wage and hour data were obtained for workers in the plants, working foremen, and office employees. Employers were instructed not to include data for executive, supervisory, and professional employees, pensioners, outside salesmen, or persons temporarily engaged for the repair of old or the construction of new buildings.

## *Average Hourly Earnings*

### THE INDUSTRY AS A WHOLE

The average hourly earnings of workers in establishments engaged in the manufacture of wood turnings, shapes, and miscellaneous wood products amounted to 45.5 cents an hour in February 1941. Well over one-half of the workers (55.7 percent) received 40 cents or more an hour and roughly three-fourths (73.2 percent) received 35 cents or more an hour. Less than 1 percent failed to earn as much as 30 cents an hour, the minimum under the Fair Labor Standards Act.

TABLE 2.—*Distribution of Workers in Establishments Primarily Engaged in the Manufacture of Wood Turnings, Etc., by Average Hourly Earnings and Region, February 1941*

| Average hourly earnings | United States | New England States | Middle Atlantic States | North Central States | Far Western States | Southern Border States | Other Southern States |
|---|---|---|---|---|---|---|---|
| Under 30.0 cents | 0.4 | 0.1 | ---------- | 0.1 | 0.6 | 3.0 | 0.5 |
| 30.0 and under 31.0 cents | 16.8 | 13.7 | 10.4 | 10.1 | ---------- | 25.4 | 62.7 |
| 31.0 and under 32.0 cents | 1.6 | 1.5 | 1.3 | 1.4 | ---------- | 1.7 | 4.2 |
| 32.0 and under 33.0 cents | 4.5 | 2.9 | 2.9 | 2.2 | .4 | 16.4 | 9.7 |
| 33.0 and under 34.0 cents | 2.3 | 4.3 | 1.0 | 1.5 | ---------- | 1.3 | 1.5 |
| 34.0 and under 35.0 cents | 1.2 | 1.1 | 1.6 | 1.3 | ---------- | 1.7 | .9 |
| 35.0 and under 37.0 cents | 11.0 | 16.2 | 11.3 | 6.9 | 2.4 | 12.2 | 7.6 |
| 37.0 and under 40.0 cents | 6.5 | 9.1 | 10.1 | 4.5 | ---------- | 5.1 | 2.2 |
| 40.0 cents and over | 55.7 | 51.1 | 61.4 | 72.0 | 96.6 | 33.2 | 10.7 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Average hourly earnings | $0.455 | $0.442 | $0.466 | $0.496 | $0.606 | $0.383 | $0.340 |

[2] Thus, an employee working 40 hours at regular rates and 2 hours at overtime rates of time and one-half would be credited with 43 hours paid for (40+2×1½).

Hourly earnings varied considerably among the various sections of the country. The highest earnings, 60.6 cents, were for the few workers in the Far West. Workers in the North Central States averaged 49.6 cents an hour; those in the Middle Atlantic States, 46.6 cents; and those in the New England States, 44.2 cents. The hourly earnings of workers in the border States of the South (38.3 cents) were 4.3 cents higher, on the average, than those of workers in the other Southern States.[3] These regional variations are also indicated by the distributions of individual earnings in table 2. For example, hourly earnings of 40 cents or more were received by nearly all of the workers in the Far West, as against one-half of the workers in the New England States, one-third of those in the border States of the South, and one-tenth of those in the other Southern States.

## *Variations by Type of Product*

Substantial variations in earnings are also found among the three product groups in this industry. The finished-handles group had the lowest over-all average, 42.4 cents, and the miscellaneous-wood-products group the highest, 49.6 cents. The average for the wood-turnings-and-shapes group amounted to 44.8 cents. Two-thirds of the workers in the miscellaneous-wood-products group earned 40 cents or more an hour, as compared to one-half of those in the other two product groups. (See table 3.)

TABLE 3.—*Distribution of Workers in Establishments Primarily Engaged in the Manufacture of Wood Turnings, Etc., by Average Hourly Earnings and Product Group, February 1941*

| Average hourly earnings | Finished wood handles | Wood turnings and shapes | Miscellaneous wood products |
|---|---|---|---|
| Under 30.0 cents | 1.0 | ---------- | 0.2 |
| 30.0 and under 31.0 cents | 22.4 | 13.8 | 13.1 |
| 31.0 and under 32.0 cents | 1.5 | 3.0 | .4 |
| 32.0 and under 33.0 cents | 6.4 | 4.9 | 2.0 |
| 33.0 and under 34.0 cents | 1.2 | 1.8 | 4.0 |
| 34.0 and under 35.0 cents | 1.3 | 1.3 | 1.0 |
| 35.0 and under 37.0 cents | 10.4 | 14.9 | 8.0 |
| 37.0 and under 40.0 cents | 5.7 | 8.6 | 5.3 |
| 40.0 cents and over | 50.1 | 51.7 | 66.0 |
| Total | 100.0 | 100.0 | 100.0 |
| Average hourly earnings | $0.424 | $0.448 | $0.496 |

## *Variations by Size of Community and Size of Plant*

The average hourly earnings of workers in establishments manufacturing wood turnings and shapes and miscellaneous wood products tend to vary with the size of the community, as will be seen from the

[3] These include Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, and Texas.

following tabulation. Hourly earnings were substantially higher in cities of 100,000 and over than in towns of less than 2,500. The same tendency obtains in both the North and the South.

| Size of city (population) | Average hourly earnings | | |
|---|---|---|---|
| | United States | North | South |
| Total | $0.455 | $0.475 | $0.364 |
| Under 2,500 | .418 | .430 | .338 |
| 2,500 and under 10,000 | .423 | .447 | .332 |
| 10,000 and under 100,000 | .487 | .511 | .354 |
| 100,000 and over | .494 | .524 | .409 |

Only to a limited extent do average hourly earnings tend to vary with the size of the establishment. The few largest plants (250 wage earners and over) had a substantially higher average than those employing less than 250 workers. There is very little difference in the average hourly earnings of plants of various sizes in the latter group.

# HOURS AND EARNINGS OF EMPLOYEES OF INDEPENDENT LEAF-TOBACCO DEALERS [1]

## *Summary*

HOURLY earnings of workers employed in establishments of independent leaf-tobacco dealers averaged 34.3 cents during the period August 1940 to February 1941. Male workers earned 36.3 cents an hour on the average, while female workers earned but 31.7 cents an hour. These figures are based on a questionnaire survey which covered 382 establishments employing over 38,000 workers.

More than seven-tenths of the workers whose earnings were reported earned less than 31 cents an hour. The proportion of workers earning less than 31 cents was greatest (83 percent) in North Carolina, the leading State in this industry.

A comparison of the average hourly and weekly earnings of Negro workers employed in 11 identical establishments in 1935 and 1940 indicates that in this 5-year period earnings almost doubled. The increase in earnings has been accompained by a marked increase in the mechanization of stemming operations.

## *Characteristics of the Industry*

Independent tobacco leaf dealers, including auction warehousemen, constitute virtually the sole agency through which tobacco is transferred from the farm to the processor. More than 95 percent of all tobacco grown in the United States is handled by independent leaf dealers,[2] many of whom purchase considerable quantities of tobacco and redry, stem, and store it for future sale to processors or for export. The purpose of this report is to describe the wage structure of independent tobacco dealers engaged in redrying,[3] stemming, auction warehousing, other warehousing, exporting, or any other operation relating to the handling or processing of leaf tobacco.

Refined statistics regarding the volume and value of tobacco sold in 1940 are not available. The United States Department of Agriculture estimates, however, that the farm value of tobacco in the crop year 1940 approached $229,000,000, representing a volume of nearly 1,452,000,000 pounds.

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[1] The present survey is part of a larger survey of the hours and earnings of workers in all tobacco industries conducted during the early part of 1941 by the Division of Wage and Hour Statistics of the Bureau of Labor Statistics. The present article was prepared by Sidney C. Sufrin, assisted by Thomas P. Henson.

[2] According to the report of the Commissioner of Internal Revenue for the fiscal year ended June 30, 1940, only 1.1 percent of the total tobacco-leaf sales for the year 1939 were consummated directly between farmers and manufacturers. A small amount of cigar tobacco and Louisiana perique are customarily sold directly by farmers to manufacturers.

[3] "Redrying" is the process used to condition tobacco for storage. The tobacco is passed through a drying chamber and, if it is to be stemmed immediately, is then passed through a moistening chamber where the leaves absorb the proper amount of moisture to make them pliable for stemming.

The number of employees required to handle this crop in the warehouses, stemmeries, and markets is not known. Estimates of the volume of employment are difficult to make because of the extreme seasonality in the industry, but probably more than 50,000 workers are employed by the industry during the peak months.

Employment in the independent leaf-tobacco division of the tobacco industry is of a highly seasonal nature, the dealers carrying on their operations largely during the green-leaf season. In 1939 and 1940 the operators were granted partial exemption from the maximum-hours provisions of the Fair Labor Standards Act, in accordance with the provisions of the act. Employees were permitted to work up to 56 hours per week for 14 weeks a year, the particular weeks to be determined by the individual dealer.

Leaf dealers typically recruit casual labor from neighboring farms. The farm workers in the principal producing areas of the tobacco belt are traditionally Negroes, and are doubtless among the lowest-paid workers in our economy. Workers engaged in hand stemming, one of the most important occupations in the industry, are often paid on a piece-work basis.

The advent of minimum hourly earnings under the Fair Labor Standards Act has had important repercussions on the industry. Warehouse and plant officials state that more care is exercised in choosing workers, especially stemming hands, than was the case when piece rates were not supplemented by a guaranteed minimum. Furthermore, there is a growing tendency for stemmeries to install automatic stemming machines, thus displacing hand stemmers. In 1935, for illustration, the Bureau of Labor Statistics secured wage data from a group of stemmeries, 10 of which employed no machine stemmers.[4] In 1940–41 the identical 10 plants reported that 54 percent of their stemmery employees were employed on automatic stemming machines.

## *Scope of Study*

The basic data for the present study were secured directly from the various concerns in the industry by means of a mail questionnaire. The data for each plant were secured for a pay-roll period between August 15, 1940, and February 15, 1941.[5] The acceptance of material for pay-roll periods scattered over so long an interval was necessitated by the fact that the time of the active season varies from one section of the country to another. It should be recognized, of course, that the findings of the study represent conditions in the industry during the active season, and are not typical of year-round operations.

[4] See Monthly Labor Review, May 1937: Earnings and Hours of Negro Workers in Independent Tobacco Stemmeries in 1933 and 1935.

[5] About two-thirds of the cooperating establishments reported data for pay-roll periods during October, November, or December 1940, December being the most common month.

The names and addresses of the firms to which questionnaires were sent were obtained from the United States Bureau of Internal Revenue. In all, 1,803 mail questionnaires were sent to members of the industry, but only 382 were returned in usable form. No response was received from 800 of the questionnaires, 118 were returned by the postal authorities as undeliverable, while the replies of 503 were not usable for various other reasons. The low percentage of usable returns (21.2 percent) is explained by the fact that questionnaires were sent to all persons holding a license to deal in leaf tobacco, whereas many of such dealers employ no labor but use the facilities provided by various independent warehouses. Still other license holders are itinerant dealers, who likewise have no employees, and who have no stable place of business. Many of the 503 nonusable schedules presented hours and earnings for an unspecified "season."

The firms represented by the 382 usable schedules referred to above employed in the aggregate more than 38,500 workers. Table 1 shows the number of workers included in the study by region and branch of the industry.

TABLE 1.—*Number of Plants and Employees Covered in Survey of Independent Leaf Dealers, by Region and Type of Operation, 1940–41*

| State or region | Total | | Redrying and stemming | | Warehousing | | Other operations | |
|---|---|---|---|---|---|---|---|---|
| | Number of plants | Number of employees | Number of plants | Number of employees | Number of plants | Number of employees | Number of plants | Number of employees |
| United States | 382 | 38,703 | 113 | 27,740 | 158 | 8,207 | 111 | 2,756 |
| Kentucky | 77 | 6,754 | 31 | 3,923 | 28 | 2,206 | 18 | 625 |
| North Carolina | 107 | 17,281 | 47 | 15,494 | 41 | 1,675 | 19 | 112 |
| Virginia | 52 | 5,388 | 17 | 4,591 | 16 | 349 | 19 | 448 |
| Other Southern States [1] | 66 | 5,909 | 13 | 3,516 | 33 | 1,543 | 20 | 850 |
| Northern States [2] | 80 | 3,371 | 5 | 216 | 40 | 2,434 | 35 | 721 |

[1] Includes Florida, Georgia, Maryland, South Carolina, Tennessee, and West Virginia.
[2] Includes Connecticut, Illinois, Indiana, Massachusetts, New Jersey, New York, Ohio, Pennsylvania, and Wisconsin.

It was not considered expedient to request data regarding degree of skill of workers, method of wage payment, overtime policies, and so forth in the mail questionnaire. Separate information was obtained, however, regarding the wages of machine stemmers, hand stemmers, and nonstemming workers. Nonstemming workers include the office employees as well as the other employees of independent leaf dealers who actually handle tobacco.[6] Data on the aggregate number of employees, hours worked, and earnings, by sex and by color of worker, were obtained for these classes of workers. Information was also

[6] The earnings of executive, supervisory, and professional employees and outside salesmen were excluded from the study.

secured regarding type of tobacco handled (i. e., cigar or cigarette) and type of operation (i. e., auction warehousing, exporting, etc.). In addition to the above information the questionnaire called for a distribution of employees by average hourly earnings for specific wage intervals up to 40 cents an hour.

## *Earnings and Hours by Regions*

The average earnings of all workers covered by the survey were 34.3 cents an hour. Hours worked averaged 39.6 per week and weekly earnings averaged $13.58. The average hourly wage for males was 36.3 cents, while that for females was 31.7 cents. Males averaged $15.02 per week and females, $11.98. Table 2 presents average hourly earnings and average weekly hours and earnings for male and female employees in specified occupations. It is of special interest that the average hourly earnings of hand stemmers were considerably higher than those of machine stemmers (34.6 cents as compared to 30.2 cents.)

Two major factors account for the difference in earnings between machine and hand stemmers. More hand stemmers than machine stemmers were reported as employed on cigar tobacco. Such processing is typically carried on in the North, where higher wages prevail than in the South. By contrast, the stemming of noncigar tobacco is concentrated in the South. This factor tends to lower the average wages of machine stemmers relative to hand stemmers. The second consideration is probably of greater importance in explaining the difference. According to the Fair Labor Standards Act, the minimum legal rate of pay is 30 cents an hour. Machine stemmers are usually paid on a time basis, very few receiving more than 30 cents an hour. Hand stemmers, on the other hand, in addition to being assured a minimum of 30 cents an hour, work on a piece-rate basis, thus being able to earn in excess of that amount. As a result of the legal minimum wage, employers have retained only the most efficient hand stemmers.

TABLE 2.—*Average Hourly Earnings, Weekly Hours, and Weekly Earnings in Independent Leaf-Dealer Establishments, by Sex and Occupation, 1940–41*

| Sex and occupation | Number of employees | Average hourly earnings | Average weekly hours | Average weekly earnings |
|---|---|---|---|---|
| Total, all workers | 34,201 | $0.343 | 39.6 | $13.58 |
| Machine stemmers | 3,079 | .302 | 38.9 | 11.74 |
| Hand stemmers | 3,430 | .346 | 37.9 | 13.13 |
| All others | 27,692 | .347 | 39.9 | 13.84 |
| Total, males | 18,041 | .363 | 41.3 | 15.02 |
| Machine stemmers | 283 | .314 | 41.3 | 12.97 |
| Hand stemmers | 344 | .362 | 36.8 | 13.32 |
| All others | 17,414 | .364 | 41.4 | 15.09 |
| Total, females | 16,160 | .317 | 37.8 | 11.98 |
| Machine stemmers | 2,796 | .301 | 38.6 | 11.62 |
| Hand stemmers | 3,086 | .345 | 38.0 | 13.11 |
| All others | 10,278 | .313 | 37.5 | 11.74 |

The averages of hourly earnings, weekly hours, and weekly earnings by region are presented in table 3. Workers in the northern region averaged 37.5 cents an hour. The highest wage average for any southern area was 36.1 cents an hour, paid to Virginia workers, and the lowest was only 32.9 cents an hour, paid to workers in North Carolina. Workers in Kentucky averaged 33.9 cents an hour and in the other Southern States, 35.0 cents an hour.

TABLE 3.—*Average Hourly Earnings, Weekly Hours, and Weekly Earnings in Independent Leaf-Dealer Establishments, by Region, 1940–41*

| State or region | Average hourly earnings | Average weekly hours | Average weekly earnings |
|---|---|---|---|
| United States | $0.343 | 39.6 | $13.58 |
| North Carolina | .329 | 40.0 | 13.17 |
| Kentucky | .339 | 38.8 | 13.15 |
| Virginia | .361 | 39.6 | 14.33 |
| Other Southern States [1] | .350 | 39.6 | 13.83 |
| Northern States [2] | .375 | 39.4 | 14.79 |

[1] Includes the States of Florida, Georgia, Maryland, South Carolina, Tennessee, and West Virginia.
[2] Includes the States of Connecticut, Illinois, Indiana, Massachusetts, New York, Ohio, Pennsylvania, and Wisconsin.

The average weekly earnings followed the same pattern as the average hourly earnings, except that weekly earnings in Kentucky ($13.15), were approximately equal to the average earnings in North Carolina ($13.17). These two are the only regions in which weekly earnings were lower than the United States average of $13.58.

There was no significant variation in average weekly hours among the various regions. The lowest was 38.8 hours in Kentucky and the highest was exactly 40 hours in North Carolina. The fact that hours of work were no longer is surprising, in view of the fact that this branch of the tobacco industry has been granted seasonal exemption from the maximum-hours provisions of the Fair Labor Standards Act.

Distributions of employees by average hourly earnings are presented in table 4. More than 70 percent of the employees in this branch of the industry earned less than 31 cents an hour. No data were collected to show the distribution of earnings below that hourly wage, but examination of other material secured in connection with the survey indicates that the great majority of the workers earning less than 31 cents actually averaged close to 30 cents an hour, the minimum set by the Fair Labor Standards Act. Slightly over 20 percent of the workers earned 35 cents or more an hour and nearly 12 percent earned 40 cents or more.

TABLE 4.—*Percentage Distribution of Employees in Independent Leaf-Dealer Establishments, by Average Hourly Earnings and Region, 1940–41*

| State or region | Number of establishments | Number of employees | Percent of workers receiving— | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Under 31 cents | 31 and under 32 cents | 32 and under 33 cents | 33 and under 35 cents | 35 and under 40 cents | 40 cents and over |
| United States | 382 | 38,703 | 71.6 | 2.3 | 3.6 | 2.2 | 8.5 | 11.8 |
| Kentucky | 77 | 6,754 | 78.1 | 1.1 | 1.8 | 1.0 | 7.8 | 10.2 |
| North Carolina | 107 | 17,281 | 83.0 | 1.6 | 2.3 | .8 | 5.1 | 7.2 |
| Virginia | 52 | 5,388 | 49.2 | 7.4 | 5.9 | 7.2 | 12.9 | 17.4 |
| Other Southern States [1] | 66 | 5,909 | 80.9 | 1.0 | 1.5 | 1.0 | 4.4 | 11.2 |
| Northern States [2] | 80 | 3,371 | 18.0 | 2.6 | 14.3 | 6.4 | 28.0 | 30.7 |

[1] Includes Florida, Georgia, Maryland, South Carolina, Tennessee, and West Virginia.
[2] Includes Connecticut, Illinois, Indiana, Massachusetts, New Jersey, New York, Ohio, Pennsylvania, and Wisconsin.

An analysis of the data by region brings to light several other interesting facts. In three of the areas, hourly earnings tended to be lower than for the United States as a whole. In North Carolina, the most important tobacco-producing State, 83.0 percent of the workers had hourly earnings of less than 31 cents, and only 7.2 percent earned 40 cents an hour or more. In Kentucky and the "Other Southern States" 78.1 percent and 80.9 percent, respectively, earned below 31 cents. In Virginia, however, over half of the workers had average hourly earnings of 31 cents or more, and 17.4 percent earned 40 cents or more an hour.

In the Northern States, where relatively few workers are employed in this industry, the wages were clearly higher than in any of the Southern States. Nearly 59 percent of the workers in the North averaged 35 cents an hour or more, while more than 30 percent of them averaged 40 cents or more. Only 18 percent of the workers in this region had average hourly earnings of less than 31 cents.

In making comparisons between the northern and southern regions, it should be kept in mind that in the North cigar tobacco is handled almost exclusively, while in the South cigarette, snuff, smoking, and chewing tobaccos predominate. The care and skill required in the handling of cigar tobacco are somewhat greater than are demanded in the handling of other types.

## *Changes in the Earnings of Negro Workers, 1935–40*

In 1935 the Bureau made a study of wages of Negro employees in establishments of independent leaf dealers.[7] The 11 establishments covered in that survey in the States of North Carolina and Virginia also supplied data for the present study. The data for these 11 plants represented pay-roll periods in September of 1935. The data

[7] See footnote 4, p. 216.

secured in the present study are for pay-roll periods from October 1940 to January 1941. Employment in the 11 establishments in 1935 was 4,085 Negro workers as compared to 5,188 in 1940. The proportions of male and female workers were approximately the same in the 2 years.

A comparison of the earnings and hours of the Negro workers in these identical establishments in 1935 and 1940 appears in table 5. This table reveals phenomenal wage increases during the 5-year period. The average hourly earnings of workers in the 11 plants more than doubled between 1935 and 1940 (16.0 cents as compared to 32.5 cents an hour). The average hourly earnings of females increased from 13.5 to 32.0 cents an hour, while male workers increased their average hourly earnings from 20.7 to 33.5 cents. During this 5-year period weekly hours of work were reduced, with the result that the weekly earnings of employees in the 11 establishments did not increase in the same proportion as hourly earnings. The great changes in hours and earnings of workers in these establishments were undoubtedly due to a combination of factors. The Fair Labor Standards Act, our increasing national prosperity, and increasing mechanization in stemmeries all undoubtedly played a part in raising wages and curtailing hours of work in these 11 establishments. The changing levels of wages and hours in these establishments illustrate the drastic adjustments which have been effected throughout the industry.

TABLE 5.—*Average Hourly Earnings, Weekly Hours, and Weekly Earnings of Negro Workers in Identical Independent Leaf-Dealer Establishments in North Carolina and Virginia, 1935 and 1940*

| Sex of workers | Number of employees | | Average hourly earnings | | Average weekly hours | | Average weekly earnings | |
|---|---|---|---|---|---|---|---|---|
| | 1935 | 1940 | 1935 | 1940 | 1935 | 1940 | 1935 | 1940 |
| Both sexes | 4,085 | 5,188 | $0.160 | $0.325 | 43.4 | 38.3 | $6.92 | $12.44 |
| Males | 1,261 | 1,575 | .207 | .335 | 48.4 | 42.0 | 10.01 | 14.06 |
| Females | 2,824 | 3,613 | .135 | .320 | 41.1 | 36.6 | 5.55 | 11.73 |

## NEW WAGE SCALE AND WORKING CONDITIONS IN CHILEAN COAL MINES, 1941 [1]

A MINIMUM daily wage of 15 pesos [2] for workers in certain coal mines in Chile was accepted by companies and workers' unions in a pact signed on May 17, 1941, as a result of Government mediation

[1] Data are from report of Clarence C. Brooks, United States commercial attaché at Santiago, Chile.
[2] Free exchange rate of Chilean peso, May 17, 1941=3.2 cents.

in a wage dispute. In return for wage concessions, it is understood that the unions agree to discipline their members, to desist from interfering in any way with the orders issued by the working bosses, and to see to it that workers report for their shifts on time and in fit physical condition. In addition to these measures, and by mutual agreement with the mine owners and the labor unions, the Government, on May 15, decreed that the communes of Coronel and Lota, wherein the coal mines are located, shall henceforth be a "dry zone," prohibiting under heavy penalty the manufacture, transportation, sale, or consumption of any alcoholic beverage whatsoever in these areas.

The workers in the mines at Lota and Curanilahue are guaranteed a minimum money wage of 15 pesos per working day, and existing daily wages of all workers now receiving 11.70 pesos or more are increased by 3.30 pesos. Workers in the mines at Schwager and Lirquen are guaranteed a minimum money wage of 15 pesos per working day, and existing wages are increased by 3 pesos per day. This increase in wages will cost the operators a total of 7,649,000 pesos additional per year.

# *Building Operations*

## NEW DWELLING UNITS IN NONFARM AREAS, FIRST 3 MONTHS OF 1941

### *Summary*

CONSTRUCTION on housekeeping dwellings to accommodate approximately 129,000 families, was started during the first 3 months of 1941 in nonfarm areas. This represents an increase of 30 percent over the corresponding period of 1940. Gains of 40 percent for 1-family dwellings and 27 percent for 2-family dwellings offset a 10 percent drop in apartment units.

Housing for families of defense workers and of officers and enlisted men contributed 14,669 units to the nonfarm total. An additional 7,516 units were in nondefense USHA projects.

The permit valuation of the 129,000 new units is estimated at $443,000,000. This includes contract awards aggregating $70,000,000 for publicly financed projects.

### *Scope of Report*

The "nonfarm area" of the United States can in general be described as consisting of all urban and rural nonfarm places. The urban group includes all incorporated places with a population of 2,500 or more and also a small group of towns specially classified as urban. Incorporated places of less than 2,500 population, as well as unincorporated areas excluding farms, are designated as "rural nonfarm." The classification used here and also the groupings by size of city are based upon the 1940 census.[1]

The estimates of new dwelling units presented are derived from a large sample of building-permit reports. The Bureau of Labor Statistics began collecting such data as early as 1920, at first including only the larger cities. Since then the coverage of this sample has been steadily extended until it now includes more than 2,300 cities of 1,000 population or over. In addition to this sample of cities, a small number of counties has, since 1939, been submitting reports of building

[1] The April 1941 Monthly Labor Review summary of 1940 estimates presented a total of 386,000 units for urban areas classified in accord with the 1930 census. Retabulation of the 1940 estimates to agree with the recent census classifications raised the urban area total to 398,000.

permits issued in their unincorporated areas. An attempt is being made to add to the reporting sample incorporated places as small as 500 population and also a larger number of counties. Lack of information regarding construction of dwelling facilities on farms is the reason for restriction of the present estimates to nonfarm areas.

Building permits are usually issued when construction work is about to start. Therefore, estimates derived from permits represent future dwelling-unit capacity of buildings upon which construction was started in the period specified.

### *New Dwellings, First 3 Months of 1941*

Estimates based upon building permits indicate that approximately 129,000 new dwelling units were provided in nonfarm areas during the first quarter of 1941. This represents an increase of 30 percent over the number provided during the corresponding period of 1940.

In spite of the increase in total number of new units, apartment-type dwellings included in the first quarter of 1941 estimate were 10 percent fewer than during the corresponding period of 1940. This is due to recent trends away from apartment-house construction in the larger cities, especially New York City. One-family dwelling units, with an increase of 40 percent, were primarily responsible for the net gain; 2-family units also showed a 27-percent increase over the first quarter of 1940.

The 1-family type accounted for approximately 80 percent of the total number of dwelling units provided for during the first quarter of 1941 in the nonfarm areas; the 2-family type for 6 percent; and multi-family buildings for 14 percent. During the first quarter of 1940, 75 percent of the new dwelling units were 1-family houses; 6 percent, 2-family; and 19 percent, multifamily.

The gain in new dwelling units during the first quarter of 1941 as compared with the same period last year was the result of increased residential construction activity within all population groups. These increases were especially pronounced in smaller cities and the rural nonfarm area. In urban places of less than 10,000 population, the new dwelling units provided for during the first quarter of 1941 represented an increase of approximately 30 percent over the total for the corresponding 1940 period; in rural nonfarm areas they represented an increase of more than 60 percent. Cities of over 100,000 population, on the other hand, showed an increase of only 10 percent. These trends are presented in more detail in table 1.

TABLE 1.—*New Dwelling Units in Nonfarm Areas, First and Fourth Quarters of 1940 and First Quarter of 1941, by Population Group and Type of Dwelling*

| Population group (1940 census) | All types | | | 1-family | | | 2-family [1] | | | Multifamily [2] | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | First quarter 1941 | Fourth quarter 1940 | First quarter 1940 | First quarter 1941 | Fourth quarter 1940 | First quarter 1940 | First quarter 1941 | Fourth quarter 1940 | First quarter 1940 | First quarter 1941 | Fourth quarter 1940 | First quarter 1940 |
| Nonfarm | 128,764 | 146,617 | 99,322 | 103,382 | 112,920 | 73,772 | 8,075 | 9,593 | 6,353 | 17,307 | 24,104 | 19,197 |
| Urban | 89,604 | 103,629 | 75,883 | 66,183 | 74,640 | 52,063 | 7,106 | 7,923 | 5,143 | 16,315 | 21,066 | 18,677 |
| Cities of: | | | | | | | | | | | | |
| 500,000 and over | 24,262 | 26,456 | 23,270 | 11,736 | 12,173 | 10,205 | 1,830 | 1,568 | 1,011 | 10,696 | 12,715 | 12,054 |
| 100,000 to 500,000 | 19,691 | 26,138 | 16,660 | 14,851 | 18,028 | 11,448 | 2,204 | 2,863 | 1,345 | 2,636 | 5,247 | 3,867 |
| 50,000 to 100,000 | 8,734 | 7,799 | 8,134 | 6,455 | 6,266 | 6,257 | 1,288 | 816 | 1,073 | 991 | 717 | 804 |
| 25,000 to 50,000 | 10,451 | 11,826 | 7,598 | 9,031 | 9,913 | 6,410 | 586 | 947 | 627 | 834 | 966 | 561 |
| 10,000 to 25,000 | 12,505 | 15,358 | 9,478 | 11,126 | 13,218 | 8,167 | 675 | 1,227 | 483 | 704 | 913 | 828 |
| 5,000 to 10,000 | 8,032 | 9,327 | 6,406 | 7,487 | 8,790 | 5,677 | 282 | 297 | 360 | 263 | 240 | 369 |
| 2,500 to 5,000 | 5,929 | 6,725 | 4,337 | 5,497 | 6,252 | 3,899 | 241 | 205 | 244 | 191 | 268 | 194 |
| Rural nonfarm | 39,160 | 42,988 | 23,439 | 37,199 | 38,280 | 21,709 | 969 | 1,670 | 1,210 | 992 | 3,038 | 520 |

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

Except for the Middle Atlantic and West South Central States, all sections of the country showed a higher level of activity during the first quarter of 1941 as compared with the same period last year. The decrease in the Middle Atlantic total was the result of drops in apartment units, both privately and publicly financed. The West South Central decrease was because of fewer publicly financed houses; privately financed units in this area showed an increase.

The greatest gains over the corresponding period of 1940 were shown in the South Atlantic, East North Central, and Pacific States. The South Atlantic States also showed the largest gain in new dwelling units as compared with the last quarter of 1940. The geographic-division estimates of new dwelling units of each type are presented in table 2, for the first quarter of 1941 and the first and fourth quarters of 1940.

TABLE 2.—*New Dwelling Units in Nonfarm Areas, First and Fourth Quarters of 1940 and First Quarter of 1941, by Geographic Division and Type of Dwelling*

| Geographic division | All types | | | 1-family | | | 2-family [1] | | | Multifamily [2] | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | First quarter 1941 | Fourth quarter 1940 | First quarter 1940 | First quarter 1941 | Fourth quarter 1940 | First quarter 1940 | First quarter 1941 | Fourth quarter 1940 | First quarter 1940 | First quarter 1941 | Fourth quarter 1940 | First quarter 1940 |
| All divisions | 128,764 | 146,617 | 99,322 | 103,382 | 112,920 | 73,772 | 8,075 | 9,593 | 6,353 | 17,307 | 24,104 | 19,197 |
| New England | 6,787 | 8,571 | 3,313 | 5,363 | 6,092 | 2,419 | 436 | 417 | 420 | 988 | 2,062 | 474 |
| Middle Atlantic | 18,218 | 22,142 | 19,126 | 10,156 | 11,148 | 8,122 | 1,052 | 1,085 | 804 | 7,010 | 9,909 | 10,200 |
| East North Central | 19,959 | 24,087 | 11,230 | 17,747 | 20,446 | 10,287 | 1,155 | 1,984 | 549 | 1,057 | 1,657 | 394 |
| West North Central | 5,710 | 7,594 | 4,854 | 4,629 | 6,990 | 4,352 | 452 | 364 | 147 | 629 | 240 | 355 |
| South Atlantic | 28,821 | 29,258 | 17,666 | 23,329 | 21,502 | 13,776 | 1,789 | 1,664 | 1,549 | 3,703 | 6,092 | 2,341 |
| East South Central | 6,379 | 7,327 | 4,934 | 5,406 | 6,494 | 4,078 | 837 | 721 | 717 | 136 | 112 | 139 |
| West South Central | 11,801 | 13,290 | 13,024 | 10,371 | 11,003 | 9,863 | 915 | 1,921 | 809 | 515 | 366 | 2,352 |
| Mountain | 4,048 | 4,512 | 3,867 | 3,637 | 4,285 | 3,189 | 125 | 119 | 253 | 286 | 108 | 425 |
| Pacific | 27,041 | 29,836 | 21,308 | 22,744 | 24,960 | 17,686 | 1,314 | 1,318 | 1,105 | 2,983 | 3,558 | 2,517 |

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

## *New Housing, by Source of Funds*

Included in the estimate of new dwelling units provided during the first 3 months of 1941 are housing facilities for 22,185 families in projects financed with public funds. These units represent 17 percent of the nonfarm total. During the corresponding period of 1940, 10,415 units, or approximately 10 percent of the total number, were publicly financed.

Of the publicly financed units during the first quarter of 1941, 14,669 were designated for housing of families of defense workers and officers and enlisted men. Special defense appropriations provided for 11,168 of these units, United States Housing Authority funds for 1,184, and Defense Homes Corporation funds for 2,317. The remaining 7,516 publicly financed units were in nondefense USHA projects. During the last quarter of 1940, 21,100 of the publicly financed units were in defense housing developments and 13,279 in nondefense projects. All of the publicly financed units provided during the first quarter of 1940 were in USHA projects.

During the first quarter of 1941, 36 percent of all privately financed [2] nonfarm dwelling units were in cities of over 100,000 population, 36 percent in urban places of less than 100,000 population, and 28 percent in rural nonfarm areas. These are approximately the same relationships as for the first quarter of 1940. For publicly financed projects in the current period, 26 percent of the units were in cities of over 100,000 population, 30 percent in smaller urban places, and 44 percent in rural nonfarm areas. The large total of publicly financed units in rural nonfarm areas is due to defense projects situated close to but not within the city limits of defense-boom towns. The estimated number of dwelling units for each population group for the first quarter of 1941 and the first and fourth quarters of 1940 are presented in table 3, by source of funds.

TABLE 3.—*New Dwelling Units in Nonfarm Areas, First and Fourth Quarters of 1940 and First Quarter of 1941, by Population Group and Source of Funds*

| Population group (1940 census) | Total | | | Private funds | | | Public funds | | |
|---|---|---|---|---|---|---|---|---|---|
| | First quarter 1941 | Fourth quarter 1940 | First quarter 1940 | First quarter 1941 | Fourth quarter 1940 | First quarter 1940 | First quarter 1941 | Fourth quarter 1940 | First quarter 1940 |
| Nonfarm | 128,764 | 146,617 | 99,322 | 106,579 | 112,238 | 88,907 | 22,185 | 34,379 | 10,415 |
| Urban | 89,604 | 103,629 | 75,883 | 77,097 | 78,433 | 65,468 | 12,507 | 25,146 | 10,415 |
| Cities of: | | | | | | | | | |
| 500,000 and over | 24,262 | 26,456 | 23,270 | 23,345 | 21,075 | 21,196 | 917 | 5,381 | 2,074 |
| 100,000 to 500,000 | 19,691 | 26,138 | 16,660 | 14,838 | 14,641 | 11,617 | 4,853 | 11,497 | 5,043 |
| 50,000 to 100,000 | 8,734 | 7,799 | 8,134 | 7,092 | 7,229 | 6,682 | 1,642 | 570 | 1,452 |
| 25,000 to 50,000 | 10,451 | 11,826 | 7,598 | 7,888 | 9,027 | 6,364 | 2,563 | 2,799 | 1,234 |
| 10,000 to 25,000 | 12,505 | 15,358 | 9,478 | 11,246 | 12,259 | 9,070 | 1,259 | 3,099 | 408 |
| 5,000 to 10,000 | 8,032 | 9,327 | 6,406 | 7,344 | 8,127 | 6,202 | 688 | 1,200 | 204 |
| 2,500 to 5,000 | 5,929 | 6,725 | 4,337 | 5,344 | 6,125 | 4,337 | 585 | 600 | 0 |
| Rural nonfarm | 39,160 | 42,988 | 23,439 | 29,482 | 33,755 | 23,439 | 9,678 | 9,233 | 0 |

[2] Homes financed with mortgages insured by the Federal Housing Administration are included in the totals of privately financed units.

The Pacific States led all geographic divisions in number of new privately financed dwelling units during the first quarter of 1941. Next in order of importance were the South Atlantic, East North Central, and Middle Atlantic States. These four areas accounted for approximately three-fourths of all the new privately financed dwelling units.

Nearly two-fifths of the new publicly financed units during the first 3 months of 1940 were in the South Atlantic States. This area, because of the many centers of defense effort included, was also the most active with respect to public housing during the fourth quarter of 1940. Table 4 presents separately totals of new privately and of new publicly financed dwelling units in each of the geographic divisions.

TABLE 4.—*New Dwelling Units in Nonfarm Areas, First and Fourth Quarters of 1940 and First Quarter of 1941, by Geographic Division and Source of Funds*

| Geographic division | Total | | | Private funds | | | Public funds | | |
|---|---|---|---|---|---|---|---|---|---|
| | First quarter 1941 | Fourth quarter 1940 | First quarter 1940 | First quarter 1941 | Fourth quarter 1940 | First quarter 1940 | First quarter 1941 | Fourth quarter 1940 | First quarter 1940 |
| All divisions | 128,764 | 146,617 | 99,342 | 106,579 | 112,238 | 88,907 | 22,185 | 34,379 | 10,415 |
| New England | 6,787 | 8,571 | 3,313 | 3,111 | 5,198 | 2,346 | 3,676 | 3,373 | 967 |
| Middle Atlantic | 18,218 | 22,142 | 19,126 | 16,933 | 18,279 | 17,432 | 1,285 | 3,863 | 1,694 |
| East North Central | 19,959 | 24,087 | 11,230 | 17,605 | 20,018 | 10,649 | 2,354 | 4,069 | 581 |
| West North Central | 5,710 | 7,594 | 4,854 | 5,017 | 7,469 | 4,582 | 693 | 125 | 272 |
| South Atlantic | 28,821 | 29,258 | 17,666 | 20,348 | 19,906 | 15,270 | 8,473 | 9,352 | 2,396 |
| East South Central | 6,379 | 7,327 | 4,934 | 5,650 | 5,315 | 4,385 | 729 | 2,012 | 549 |
| West South Central | 11,801 | 13,290 | 13,024 | 10,333 | 9,331 | 9,797 | 1,468 | 3,959 | 3,227 |
| Mountain | 4,048 | 4,512 | 3,867 | 3,664 | 4,282 | 3,642 | 384 | 230 | 225 |
| Pacific | 27,041 | 29,836 | 21,308 | 23,918 | 22,440 | 20,804 | 3,123 | 7,396 | 504 |

The permit valuation of the 129,000 new dwelling units started in the first 3 months of 1941 is estimated at approximately $443,000,000. This total includes $373,000,000 for privately financed dwellings and $70,000,000 for public projects. The dollar volume for public projects is computed from contract awards, and is therefore equivalent to construction costs. Values given for privately financed units are in terms of permit valuations, which generally understate costs.

The new dwellings provided during the first quarter of 1941 in the East North Central States were valued at $90,000,000, the largest value for all geographic divisions. Other divisions with dollar volume of new units exceeding $70,000,000 were the South Atlantic ($89,000,000), Pacific ($87,000,000), and Middle Atlantic ($74,000,000). Of the money allocated for public housing during this period $25,000,000 was for housing in the South Atlantic States and $13,000,000 and $10,000,000, respectively, for housing in the New England and Pacific States. The permit valuations of privately financed units during the first period of 1941 and contract awards for public projects are presented in table 5 for each geographic division.

TABLE 5.—*Permit Valuation of New Dwellings in Nonfarm Areas During First 3 Months of 1941, by Geographic Division and Source of Funds*

| Geographic division | Estimated permit valuation | | |
|---|---|---|---|
| | Total | Private funds | Public funds [1] |
| All divisions | $443,148,000 | $373,036,000 | $70,112,000 |
| New England | 27,280,000 | 14,255,000 | 13,025,000 |
| Middle Atlantic | 73,759,000 | 69,473,000 | 4,286,000 |
| East North Central | 89,930,000 | 82,262,000 | 7,668,000 |
| West North Central | 19,317,000 | 16,729,000 | 2,588,000 |
| South Atlantic | 89,055,000 | 64,324,000 | 24,731,000 |
| East South Central | 13,910,000 | 11,644,000 | 2,266,000 |
| West South Central | 31,036,000 | 26,888,000 | 4,148,000 |
| Mountain | 11,677,000 | 10,476,000 | 1,201,000 |
| Pacific | 87,184,000 | 76,985,000 | 10,199,000 |

[1] Contract values.

## SUMMARY OF BUILDING CONSTRUCTION IN PRINCIPAL CITIES, MAY 1941 [1]

AS A RESULT of the sharp decline in contract awards for publicly financed construction in May, permit valuations of all classes of building construction combined were 7.1 percent lower than in April. Permit valuations of new residential construction decreased 9.0 percent from April to May and new nonresidential construction showed a decline of 9.3 percent. Additions, alterations, and repairs to existing structures, on the other hand, were 8.5 percent higher than in April.

As compared with the corresponding month in 1940, however, building-permit valuations showed substantial increases for all classes of construction. The increase for all classes combined amounted to 32.0 percent. Permit valuations of new residential construction showed a gain of 11.6 percent over May 1940. Nonresidential permit valuations, with an increase of 91.8 percent, showed the largest gain over the year period. Additions, alterations, and repairs to existing structures increased 17.2 percent.

### *Comparison of May 1941 with April 1941 and May 1940*

A summary of building construction in 2,099 identical cities in May 1941, with percentage changes from April 1941 and May 1940, is given in table 1.

A summary of permit valuations and the number of family-dwelling units provided in new dwellings in 2,099 identical cities having a population of 1,000 and over, is shown in table 2 for May 1941 with percentage changes from April 1941 and May 1940.

[1] More detailed information by geographic division and individual cities is given in a separate pamphlet entitled "Building Construction, May 1941," copies of which will be furnished upon request.

TABLE 1.—*Summary of Building Construction for Which Permits Were Issued in 2,099 Identical Cities, May 1941*

| Class of construction | Number of buildings | | | Permit valuation | | |
|---|---|---|---|---|---|---|
| | May 1941 | Percentage change from— | | May 1941 | Percentage change from— | |
| | | April 1941 | May 1940 | | April 1941 | May 1940 |
| All construction | 88,608 | −0.8 | +4.1 | $271,344,942 | −7.1 | +32.0 |
| New residential | 28,852 | −4.6 | +11.0 | 138,616,588 | −9.0 | +11.6 |
| New nonresidential | 14,915 | −1.8 | +4.5 | 96,226,106 | −9.3 | +91.8 |
| Additions, alterations, and repairs | 44,841 | +2.3 | +.1 | 36,502,248 | +8.5 | +17.2 |

TABLE 2.—*Number and Permit Valuation of New Dwelling Units in 2,099 Identical Cities, May 1941, by Type of Dwelling*

| Type of dwelling | Permit valuation | | | Number of dwelling units | | |
|---|---|---|---|---|---|---|
| | May 1941 | Percentage change from— | | May 1941 | Percentage change from— | |
| | | April 1941 | May 1940 | | April 1941 | May 1940 |
| All types | $136,645,348 | −9.0 | +15.3 | 36,923 | −8.9 | +13.4 |
| 1-family | 109,394,306 | −1.7 | +16.7 | 26,812 | −1.9 | +12.9 |
| 2-family [1] | 5,481,676 | −17.0 | −37.8 | 2,136 | −17.4 | −31.0 |
| Multifamily [2] | 21,769,366 | −32.8 | +36.7 | 7,975 | −24.8 | +39.6 |

[1] Includes 1- and 2-family dwellings with stores. [2] Includes multifamily dwellings with stores.

## *Construction During First 5 Months, 1940 and 1941*

Cumulative totals for the first 5 months of 1941 compared with the same months of the preceding year are shown in table 3. The data are based on reports received from cities having a population of 1,000 and over.

TABLE 3.—*Permit Valuation of Building Construction, First 5 Months, 1940 and 1941, by Class of Construction* [1]

| Class of construction | Permit valuation of building construction, first 5 months of— | | Percentage change |
|---|---|---|---|
| | 1941 | 1940 | |
| All construction | $1,124,412,848 | $841,290,432 | +33.7 |
| New residential | 595,079,487 | 488,168,490 | +21.9 |
| New nonresidential | 382,345,182 | 218,308,125 | +75.1 |
| Additions, alterations, and repairs | 146,988,179 | 134,813,817 | +9.0 |

[1] Based on reports from cities with a population of 1,000 and over, the cities being identical for any given month of both years.

Table 4 presents the permit valuation and number of family-dwelling units provided in cities with a population of 1,000 and over for the first 5 months of 1940 and 1941.

TABLE 4.—*Number and Permit Valuation of New Dwelling Units, First 5 Months of 1940 and 1941, by Type of Dwelling* [1]

| Type of dwelling | Permit valuation, first 5 months of— | | Percentage change | Number of dwelling units, first 5 months of— | | Percentage change |
|---|---|---|---|---|---|---|
| | 1941 | 1940 | | 1941 | 1940 | |
| All types | $588,247,245 | $478,533,845 | +22.9 | 161,767 | 134,547 | +20.2 |
| 1-family | 431,422,168 | 357,821,486 | +20.6 | 107,835 | 93,114 | +15.8 |
| 2-family [2] | 25,054,984 | 27,062,504 | −7.4 | 9,805 | 10,516 | −6.8 |
| Multifamily [3] | 131,770,093 | 93,649,855 | +40.7 | 44,127 | 30,917 | +42.7 |

[1] Based on reports from cities with a population of 1,000 and over, the cities being identical for any given month of both years.
[2] Includes 1- and 2-family dwellings with stores.
[3] Includes multifamily dwellings with stores.

## *Analysis by Size of City, May 1941*

Table 5 shows the value of permits issued for building construction in May 1941 with percentage changes from April 1941 and May 1940, by size of city and by class of construction.

TABLE 5.—*Permit Valuation of Various Classes of Building Construction in 2,099 Identical Cities, May 1941, by Size of City*

| Size of city | Number of cities | Total construction | | | New residential buildings | | |
|---|---|---|---|---|---|---|---|
| | | Permit valuation, May 1941 | Percentage change from— | | Permit valuation, May 1941 | Percentage change from— | |
| | | | April 1941 | May 1940 | | April 1941 | May 1940 |
| Total, all reporting cities | 2,099 | $271,344,942 | −7.1 | +32.0 | $138,616,588 | −9.0 | +11.6 |
| 500,000 and over | 14 | 68,178,454 | −39.8 | +19.5 | 37,286,169 | −14.0 | +20.4 |
| 100,000 and under 500,000 | 78 | 63,602,806 | +4.1 | +19.5 | 28,945,563 | −23.1 | −11.2 |
| 50,000 and under 100,000 | 103 | 47,416,900 | +61.2 | +113.9 | 16,147,039 | −2.3 | +20.2 |
| 25,000 and under 50,000 | 185 | 29,668,225 | −.9 | +8.8 | 17,252,374 | −7.7 | +6.1 |
| 10,000 and under 25,000 | 457 | 35,962,389 | +7.3 | +42.5 | 20,027,958 | +9.8 | +19.3 |
| 5,000 and under 10,000 | 425 | 14,913,741 | −1.5 | +17.7 | 10,566,469 | −7.4 | +17.2 |
| 2,500 and under 5,000 | 431 | 8,681,912 | +29.0 | +59.2 | 6,384,317 | +33.6 | +75.1 |
| 1,000 and under 2,500 | 406 | 2,920,515 | −8.5 | +21.5 | 2,006,699 | +14.2 | +33.5 |

| Size of city | New nonresidential buildings | | | Additions, alterations, and repairs | | | Population (census of 1940) |
|---|---|---|---|---|---|---|---|
| | Permit valuation, May 1941 | Percentage change from— | | Permit valuation, May 1941 | Percentage change from— | | |
| | | April 1941 | May 1940 | | April 1941 | May 1940 | |
| Total, all reporting cities | $96,226,106 | −9.3 | +91.8 | $36,502,248 | +8.5 | +17.2 | 63,815,140 |
| 500,000 and over | 21,116,981 | −63.9 | +33.0 | 9,775,304 | −13.7 | −4.2 | 22,367,825 |
| 100,000 and under 500,000 | 24,032,646 | +56.8 | +74.7 | 10,624,597 | +30.9 | +53.6 | 15,620,164 |
| 50,000 and under 100,000 | 26,751,234 | +210.7 | +441.7 | 4,518,627 | +5.7 | +19.2 | 7,053,856 |
| 25,000 and under 50,000 | 8,303,512 | +14.7 | +21.7 | 4,112,339 | +2.7 | −1.9 | 6,500,739 |
| 10,000 and under 25,000 | 11,089,199 | −5.0 | +140.7 | 4,845,232 | +33.8 | +27.4 | 7,057,671 |
| 5,000 and under 10,000 | 2,934,983 | +23.2 | +26.5 | 1,412,289 | +4.9 | +5.4 | 2,997,478 |
| 2,500 and under 5,000 | 1,410,677 | +11.7 | +17.5 | 886,918 | +28.9 | +46.3 | 1,544,618 |
| 1,000 and under 2,500 | 586,874 | −49.8 | −4.5 | 326,942 | +23.2 | +14.3 | 672,789 |

The permit valuation and number of new dwelling units provided, by type of dwelling and size of city, in the 2,099 identical cities reporting for April and May 1941, are given in table 6.

TABLE 6.—*Number and Permit Valuation of New Dwelling Units in 2,099 Identical Cities, May 1941, by Size of City and Type of Dwelling*

| Size of city | Permit valuation of housekeeping dwellings | | | Number of families provided for in— | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | All types | | 1-family dwellings | | 2-family dwellings [1] | | Multifamily dwellings [2] | |
| | May 1941 | April 1941 | Percentage change | May 1941 | April 1941 | May 1941 | April 1941 | May 1941 | April 1941 | May 1941 | April 1941 |
| Total, all reporting cities | $136,645,348 | $150,223,562 | −9.0 | 36,923 | 40,528 | 26,812 | 27,330 | 2,136 | 2,587 | 7,975 | 10,611 |
| 500,000 and over | 37,125,607 | 42,650,643 | −13.0 | 9,963 | 10,580 | 4,931 | 5,846 | 776 | 651 | 4,256 | 4,083 |
| 100,000 and under 500,000 | 28,454,172 | 37,289,952 | −23.7 | 7,871 | 10,814 | 5,806 | 6,428 | 569 | 1,124 | 1,496 | 3,262 |
| 50,000 and under 100,000 | 16,095,039 | 16,246,838 | −.9 | 4,509 | 4,590 | 3,865 | 2,996 | 243 | 228 | 401 | 1,366 |
| 25,000 and under 50,000 | 17,133,074 | 18,553,973 | −7.7 | 4,563 | 5,430 | 3,827 | 3,913 | 177 | 225 | 559 | 1,292 |
| 10,000 and under 25,000 | 18,965,371 | 18,007,382 | +5.3 | 4,849 | 4,649 | 4,154 | 4,229 | 229 | 204 | 466 | 216 |
| 5,000 and under 10,000 | 10,558,369 | 11,134,595 | −5.2 | 2,556 | 2,862 | 2,328 | 2,399 | 77 | 105 | 151 | 358 |
| 2,500 and under 5,000 | 6,310,817 | 4,598,200 | +37.2 | 2,124 | 1,179 | 1,437 | 1,109 | 49 | 36 | 638 | 34 |
| 1,000 and under 2,500 | 2,002,899 | 1,741,979 | +15.0 | 488 | 424 | 464 | 410 | 16 | 14 | 8 | 0 |

[1] Includes 1- and 2-family dwellings with stores.
[2] Includes multifamily dwellings with stores.

The information on building permits issued is based on reports received by the Bureau of Labor Statistics from 2,099 identical cities having a population of 1,000 and over.

The information is collected by the Bureau of Labor Statistics from local building officials, except in the States of Illinois, Massachusetts, New Jersey, and Pennsylvania, where the State departments of labor collect and forward the information to the Bureau. In New York and North Carolina the information from the smaller cities is collected by the Bureau of Labor Statistics from local building officials and the information from the larger cities is collected and forwarded to the Bureau by the State departments of labor. The permit valuations shown in this report are estimates made by prospective builders on applying for permits to build. No land costs are included. Only building projects within the corporate limits of the cities enumerated are included in the Bureau's tabulation. The data collected by the Bureau of Labor Statistics show, in addition to private and municipal construction, the value of buildings for which contracts were awarded by the Federal and State Governments in the cities included in the report. For May 1941 the value of these buildings amounted to $53,624,000, for April 1941 to $80,932,000, and for May 1940 to $20,963,000.

## *Construction From Public Funds*

The value of contracts awarded and force-account work started during May 1941, April 1941, and May 1940 on construction projects financed wholly or partially from various Federal funds is shown in table 7.

TABLE 7.—*Value of Contracts Awarded and Force-Account Work Started on Construction Projects Financed from Federal Funds, April and May 1941 and May 1940* [1]

| Federal agency | Contracts awarded and force-account work started | | |
|---|---|---|---|
| | May 1941 | April 1941 [2] | May 1940 [1] |
| Total | $116,920,348 | $854,624,992 | $94,970,039 |
| Public Works Administration: | | | |
| Federal | 0 | 0 | 2,406,177 |
| Non-Federal: | | | |
| N. I. R. A | 0 | 0 | 88,500 |
| E. R. A. A | 838,530 | 0 | 250,562 |
| P. W. A. A., 1938 | 0 | 0 | 7,224,148 |
| Federal agency projects under the WPA | 0 | 101,289 | 345,125 |
| Regular Federal appropriations | 101,197,567 | 829,029,182 | 65,924,824 |
| United States Housing Authority | 14,884,251 | 25,494,521 | 18,730,703 |

[1] Preliminary, subject to revision.
[2] Revised.

The value of public-building and highway construction awards financed wholly from appropriations from State funds, as reported by the various State governments for May 1941, April 1941, and May 1940 is shown in the following statement:

| | *Public buildings* | *Highway construction* |
|---|---|---|
| May 1941 | $1,403,526 | $13,156,634 |
| April 1941 | 1,034,318 | 11,001,489 |
| May 1940 | 1,208,979 | 13,104,454 |

# *Retail Prices*

## FOOD PRICES IN MAY 1941

THE average retail cost of food increased 1.5 percent between April 15 and May 13, continuing the widespread advances of the previous month. Contraseasonal increases for dairy products and higher prices for fresh fruits and vegetables, pork, and lamb were largely responsible for this rise. Prices of staple commodities such as flour, lard, sugar, and coffee also continued to move upward. These advances reflect increased consumer demand, Government purchases, and seasonal price increases for certain domestic commodities; and an increasingly tight shipping situation for imported commodities. Preliminary reports for May 27 indicate a further increase of slightly less than 1 percent in retail food prices during the last 2 weeks of May.

Food costs have advanced without interruption during the last 6 months, rising 6.5 percent since November 1940. On May 13, 1941, the Bureau's index of retail prices of 54 foods was 2.1 percent above the 1935–39 average and 5.3 percent above the level of May 1940. Prices of meats, dairy products, coffee, tea, fats and oils, and sugar ranged from 3 to 10 percent higher on the average than in May 1940, eggs and butter were about 20 percent higher, while canned and dried fruits and vegetables were up 1 to 2 percent. Prices of cereals and bakery products and of fresh fruits and vegetables, on the other hand, were lower than last year at this time, the former by 3 percent and the latter by 2 percent.

### *Details by Commodity Groups*

Retail prices of flour rose 2 percent between April 15 and May 13. Flour prices have been advancing steadily since September 1940, except for a slight decline in February 1941, and are now 9 percent higher than they were at that time, although they are still 3.5 percent below the May 1940 level. The increases in flour prices for the past few months have not been reflected in prices of bread and other bakery products. The price of white bread on May 13 was 5 percent lower than in the corresponding month in 1940.

Average retail costs of meat increased 0.7 percent between April 15 and May 13, with continued advances for pork, lamb, and poultry,

largely as a result of increased consumer buying and large Government purchases of pork for domestic consumption and for shipment abroad. Prices of fresh and cured pork rose 3.3 percent during the month to a level 21 percent above that of a year ago, when pork prices were relatively low as compared with the 5-year average 1935–39. Prices of beef, which have been tending downward since January of this year, declined 2 percent between mid-April and mid-May. This decline brought beef prices to a level 8 percent higher than in May 1940, while in each of the first 4 months of this year the differential over the corresponding month of 1940 was at least 12 percent. Prices of lamb and chickens advanced seasonally during the month, by 5 percent and 2 percent, respectively. Lamb prices are only 1.3 percent higher than a year ago but roasting chickens are selling 5 percent above May 1940, and higher than at any time since July 1938. Prices of fresh and frozen fish declined 4.7 percent between April 15 and May 13, but are still 3 percent above the level of a year ago. Canned pink salmon, on the other hand, advanced 1.8 percent during the month to the highest point since it was first priced by the Bureau in January 1935. Retail prices of canned salmon have been rising moderately and almost continuously since March 1939.

Costs at retail of dairy products increased 1.3 percent between mid-April and mid-May, largely as a result of a 4.3 percent advance in butter prices. Wholesale prices of cheese were higher recently than for any May since 1930, reflecting, to some extent, purchases of cheese and evaporated milk under the Government purchasing program. Retail prices of butter and cheese in mid-May were 20 percent and 7 percent higher, respectively, than in May 1940. Prices of fresh milk declined 1 cent per quart in Scranton, Pa., and one-half cent per quart in New York as usual at this season, but advanced 1 cent per quart during the month in Buffalo, N. Y., and Los Angeles, Calif. On the average, for the country as a whole, fresh milk prices were 0.8 percent lower than they were a month ago, and 3.3 percent lower than a year ago. Prices of evaporated milk on May 13 were nearly 3 percent above prices on April 15 and about 6 percent higher than in May 1940.

Retail prices of eggs registered a seasonal advance of 2.5 percent during the month, rising to a level 21 percent higher than last May and 8 percent above the monthly average for May for the 5 years, 1935–39. Two important factors working toward higher prices for eggs this year are an increased consumer demand in this country and purchases by the Government for domestic use and for export under provisions of the lend-lease program.

Costs of fresh fruits and vegetables advanced 3.2 percent from mid-April to mid-May, owing largely to the increases which follow the marketing of new crops of potatoes and onions from the South. Prices of lettuce, carrots, and sweetpotatoes also rose, as a result of temporary shortages due to unfavorable weather conditions. Prices of green beans, cabbage, and spinach dropped as larger supplies became available. Prices of apples, oranges, and bananas continued to increase, as usual for this time of year. Retail prices of fresh fruits and vegetables as a group were 2 percent below the May 1940 level because of much lower prices for potatoes this year (24 percent), and for apples, oranges, and onions (2 to 10 percent). Prices of lettuce, spinach, green beans, and bananas, on the other hand, ranged from 15 to 30 percent higher than a year ago, while prices of cabbage, carrots, and sweetpotatoes were 8 to 10 percent above the corresponding prices in May 1940.

Canned fruit and vegetable prices increased substantially (1.2 percent) between April 15 and May 13. Canned peaches rose 2.4 percent and canned tomatoes by a similar amount, following large purchases of tomatoes by the Government. Canned corn prices were nearly 6 percent above those of a year ago, canned tomatoes were 2.4 percent higher than last year, and canned pineapple 0.5 percent higher. Canned peaches and peas, however, were lower than in May 1940 by 1.2 and 2.2 percent, respectively. Prices of dried prunes advanced 2.1 percent during the month, and navy beans rose 4.5 percent. Prunes were still 2 percent lower than a year ago, while navy bean prices were 4.5 percent higher than in May 1940.

Prices of sugar, coffee, and tea continued to rise in retail markets following earlier advances in wholesale prices caused in part by the tight shipping situation. Coffee and tea prices were only 2 or 3 percent above those of a year ago but sugar prices were about 10 percent higher than in the corresponding month of 1940.

Prices of fats and oils continued to advance at retail in response to a succession of sharp increases in wholesale markets. Government purchases of lard have been rather heavy during the past few weeks, and exports increased greatly in March of this year. Lard prices were 25 percent higher than a year ago. Prices of shortening were also somewhat higher than in May 1940, while lower prices were reported for salad dressing and peanut butter.

Indexes of retail costs of food for May 1941, April 1941, and May 1940 are shown in table 1. The accompanying chart shows the trend in costs of all foods (1935–39=100) and of each major commodity group for the period January 1929 to May 1941, inclusive.

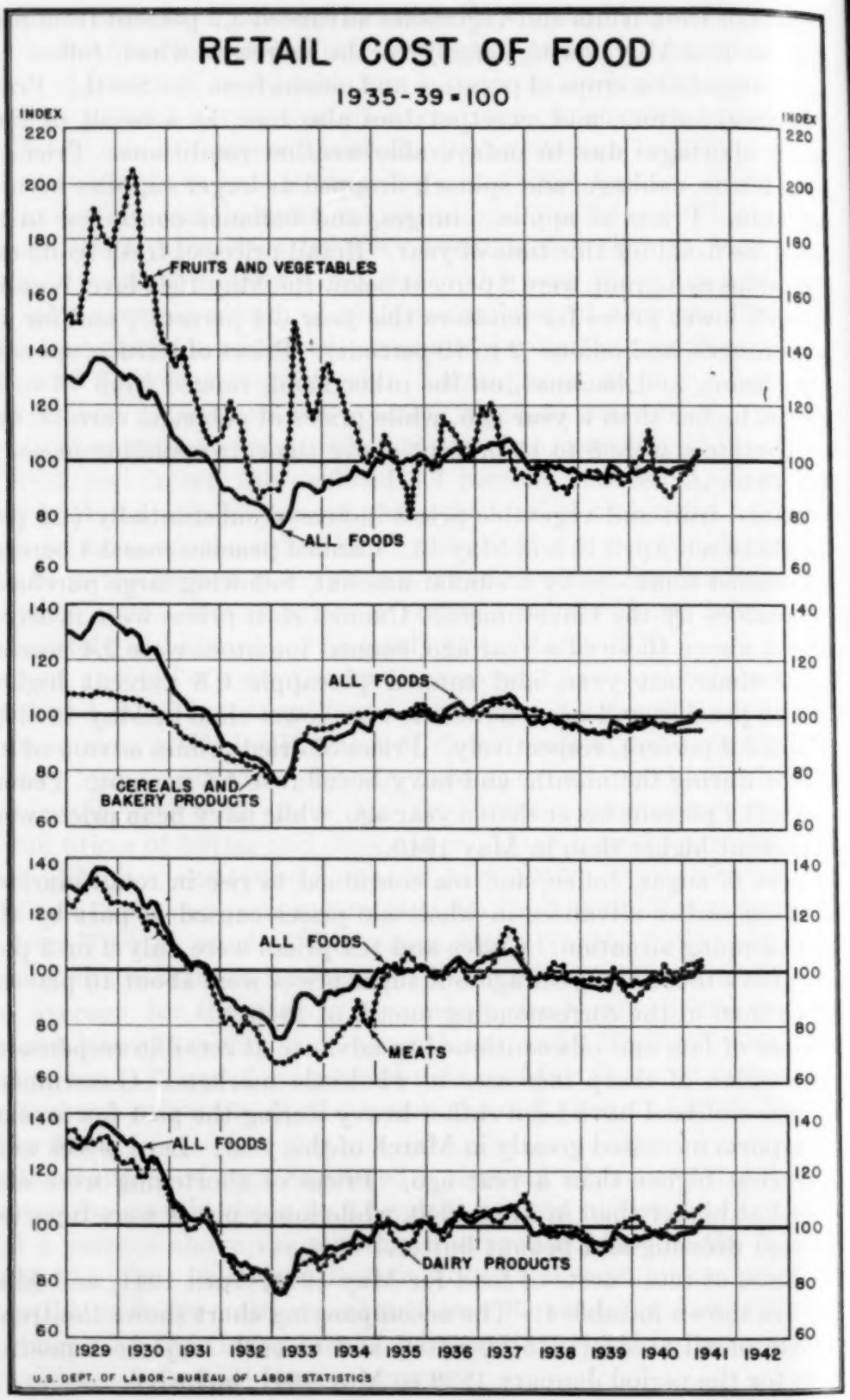
RETAIL COST OF FOOD
1935-39 = 100
INDEX
220
200
180
160
140
120
100
80
60
FRUITS AND VEGETABLES
ALL FOODS
CEREALS AND BAKERY PRODUCTS
ALL FOODS
MEATS
ALL FOODS
DAIRY PRODUCTS
1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940 1941 1942
U.S. DEPT. OF LABOR - BUREAU OF LABOR STATISTICS

TABLE 1.—*Indexes of Retail Costs of Food in 51 Large Cities Combined,*[1] *by Commodity Groups, May and April 1941 and May 1940*

[1935–39=100]

| Commodity group | 1941 | | 1940 |
|---|---|---|---|
| | May 13 [2] | April 15 | May 14 |
| All foods | 102.1 | 100.6 | 97.0 |
| Cereals and bakery products | 95.3 | 95.2 | 98.4 |
| Meats | 104.2 | 103.5 | 94.9 |
| Dairy products | 107.7 | 106.3 | 99.1 |
| Eggs | 94.3 | 92.0 | 77.9 |
| Fruits and vegetables | 103.5 | 100.6 | 104.6 |
| Fresh | 105.8 | 102.5 | 107.8 |
| Canned | 94.2 | 93.1 | 92.9 |
| Dried | 102.7 | 100.0 | 100.9 |
| Beverages | 96.1 | 95.0 | 93.3 |
| Fats and oils | 88.0 | 85.1 | 82.9 |
| Sugar | 106.9 | 104.6 | 97.3 |

[1] Aggregate costs of 54 foods in each city, weighted to represent total purchases of families of wage earners and lower-salaried workers, have been combined with the use of population weights.
[2] Preliminary.

Among the 54 foods included in the index, prices of 36 were higher in May 1941 than in April, 9 were lower, and 9 showed no change. Compared with May of last year, 35 foods were quoted at higher prices in May 1941, 17 at lower prices, and 2 at the same prices. Average prices of each of 63 foods for 51 cities combined are shown in table 2 for May 1941, April 1941, and May 1940.

TABLE 2.—*Average Retail Prices of 63 Foods in 51 Large Cities Combined, May and April 1941 and May 1940*

| Article | | 1941 | | 1940 |
|---|---|---|---|---|
| | | May 13 [1] | April 15 | May 14 |
| Cereals and bakery products: | | | | |
| Cereals: | | *Cents* | *Cents* | *Cents* |
| Flour, wheat | 10 pounds | 43.9 | 43.1 | 45.5 |
| Macaroni | pound | 13.8 | 13.8 | 14.1 |
| Wheat cereal [2] | 28-ounce package | 23.4 | 23.4 | 23.7 |
| Corn flakes | 8-ounce package | 7.1 | 7.1 | 7.1 |
| Corn meal | pound | 4.3 | 4.3 | 4.2 |
| Rice [2] | do | 8.5 | 8.3 | 7.9 |
| Rolled oats [2] | do | 7.1 | 7.1 | 7.2 |
| Bakery products: | | | | |
| Bread, white | do | 7.8 | 7.8 | 8.2 |
| Bread, whole-wheat | do | 8.8 | 8.8 | 9.0 |
| Bread, rye | do | 9.0 | 9.0 | 9.5 |
| Vanilla cookies | do | 25.2 | 25.3 | 25.1 |
| Soda crackers | do | 14.5 | 14.6 | 15.1 |
| Meats: | | | | |
| Beef: | | | | |
| Round steak | do | 37.6 | 38.0 | 35.0 |
| Rib roast | do | 30.4 | 31.2 | 28.5 |
| Chuck roast | do | 24.1 | 24.9 | 22.3 |
| Veal: Cutlets | do | 45.3 | 45.3 | 42.0 |
| Pork: | | | | |
| Chops | do | 31.9 | 30.9 | 27.7 |
| Bacon, sliced | do | 33.4 | 32.6 | 26.2 |
| Ham, sliced [2] | do | 47.8 | 46.6 | 42.7 |
| Ham, whole | do | 29.2 | 28.1 | 23.7 |
| Salt pork | do | 18.4 | 18.1 | 13.8 |
| Lamb: | | | | |
| Leg | do | 29.4 | 27.9 | 28.7 |
| Rib chops | do | 37.2 | 35.5 | 37.3 |
| Poultry: Roasting chickens | do | 33.9 | 33.2 | 32.3 |

See footnotes at end of table.

TABLE 2.—*Average Retail Prices of 63 Foods in 51 Large Cities Combined, May and April 1941 and May 1940*—Continued

| Article | | 1941 | | 1940 |
|---|---|---|---|---|
| | | May 13 [1] | April 15 | May 14 |
| Meats—Continued. | | | | |
| Fish: | | *Cents* | *Cents* | *Cents* |
| Fresh, frozen | pound | (3) | (3) | (3) |
| Salmon, pink | 16-ounce can | 16.8 | 16.5 | 15.6 |
| Salmon, red [2] | do | 27.6 | 27.2 | 25.6 |
| Dairy products: | | | | |
| Butter | pound | 41.2 | 39.5 | 34.1 |
| Cheese | do | 27.6 | 27.0 | 25.8 |
| Milk, fresh (delivered) | quart | 13.0 | 13.0 | 12.6 |
| Milk, fresh (store) | do | 11.9 | 12.0 | 11.3 |
| Milk, fresh (delivered and store) [2] | do | 12.6 | 12.7 | 12.2 |
| Milk, evaporated | 14½-ounce can | 7.3 | 7.1 | 6.9 |
| Eggs | dozen | 33.3 | 32.5 | 27.4 |
| Fruits and vegetables: | | | | |
| Fresh: | | | | |
| Apples | pound | 5.7 | 5.6 | 5.8 |
| Bananas | do | 7.6 | 7.3 | 6.4 |
| Oranges | dozen | 28.3 | 27.7 | 31.2 |
| Beans, green | pound | 12.7 | 16.5 | 9.8 |
| Cabbage | do | 4.5 | 5.2 | 4.1 |
| Carrots | bunch | 5.9 | 5.3 | 5.4 |
| Lettuce | head | 9.8 | 9.4 | 8.4 |
| Onions | pound | 6.5 | 4.9 | 6.9 |
| Potatoes | 15 pounds | 34.3 | 31.8 | 45.2 |
| Spinach | pound | 6.3 | 6.7 | 5.3 |
| Sweetpotatoes | do | 5.6 | 5.4 | 5.2 |
| Canned: | | | | |
| Peaches | No. 2½ can | 17.0 | 16.6 | 17.2 |
| Pineapple | do | 21.1 | 21.0 | 21.0 |
| Beans, green [2] | No. 2 can | 10.5 | 10.4 | 10.0 |
| Corn | do | 11.1 | 11.0 | 10.5 |
| Peas | do | 13.5 | 13.4 | 13.8 |
| Tomatoes | do | 8.7 | 8.5 | 8.5 |
| Dried: | | | | |
| Prunes | pound | 9.6 | 9.4 | 9.8 |
| Navy beans | do | 6.9 | 6.6 | 6.6 |
| Beverages: | | | | |
| Coffee | do | 22.2 | 21.9 | 21.5 |
| Tea | ¼ pound | 17.8 | 17.7 | 17.4 |
| Cocoa [2] | 8-ounce can | 9.1 | 9.1 | 9.1 |
| Fats and oils: | | | | |
| Lard | pound | 11.9 | 11.1 | 9.5 |
| Shortening, other than lard: | | | | |
| In cartons | do | 12.8 | 12.0 | 11.9 |
| In other containers | do | 19.1 | 18.7 | 19.2 |
| Salad dressing | pint | 20.4 | 20.1 | 21.0 |
| Oleomargarine | pound | 16.0 | 15.7 | 16.0 |
| Peanut butter | do | 17.8 | 17.8 | 18.1 |
| Sugar and sweets: | | | | |
| Sugar | 10 pounds | 57.4 | 56.2 | 52.3 |
| Corn sirup [2] | 24-ounce can | 13.7 | 13.6 | 13.4 |
| Molasses [2] | 18-ounce can | 13.4 | 13.4 | 13.4 |

[1] Preliminary.
[2] Not included in index.
[3] Composite prices not computed.

## *Details by Regions and Cities*

Average retail costs of food advanced in 46 cities between April 15 and May 13, declined in 4, and for 1 there was no change. Increases of 2 percent or more during the month occurred in 12 cities, with the largest advances reported for Philadelphia (3.2 percent), Seattle (3.2 percent), Los Angeles (2.7 percent), and Buffalo (2.7 percent). The relatively large increases in these 4 cities were due to greater-than-average advances for dairy products, and fats and oils. Cities for which declines in food costs were reported were Atlanta (0.7 percent), New Orleans (0.7 percent), Detroit (0.6 percent), and Richmond (0.1 per-

rent). The declining costs in these cities reflected decreases in prices of meats and lower prices or less-than-average increases for fresh fruits and vegetables.

Compared with a year ago, food costs were higher by 2 to 5 percent in 23 cities, by 5 to 8 percent in 23 cities, and by 8 to 10 percent in 5 cities.

Indexes of food costs by cities are presented in table 3 for May and April 1941 and May 1940.

TABLE 3.—*Indexes of the Average Retail Cost of All Foods, by Cities,*[1] *May and April 1941 and May 1940*

[1935–39=100]

| Region and city | 1941 | | 1940 | Region and city | 1941 | | 1940 |
|---|---|---|---|---|---|---|---|
| | May 13 [2] | April 15 | May 14 | | May 13 [2] | April 15 | May 14 |
| United States | 102.1 | 100.6 | 97.0 | South Atlantic: | | | |
| New England: | | | | Atlanta | 99.0 | 99.7 | 93.1 |
| Boston | 99.5 | 98.3 | 96.9 | Baltimore | 103.7 | 101.5 | 99.1 |
| Bridgeport | 102.3 | 100.6 | 97.5 | Charleston, S. C | 100.0 | 98.2 | 95.2 |
| Fall River | 102.2 | 100.4 | 98.4 | Jacksonville | 103.1 | [3] 101.7 | 97.8 |
| Manchester | 101.3 | 99.5 | 98.4 | Norfolk | 102.1 | 102.1 | 96.0 |
| New Haven | 101.4 | 99.8 | 97.3 | Richmond | 97.8 | 97.9 | 93.4 |
| Portland, Maine | 100.7 | [3] 98.6 | [3] 97.1 | Savannah | 104.7 | [3] 103.0 | 98.9 |
| Providence | 101.1 | 99.2 | 98.3 | Washington, D. C | 102.8 | 100.7 | 96.9 |
| Middle Atlantic: | | | | East South Central: | | | |
| Buffalo | 106.0 | 103.2 | 99.4 | Birmingham | 97.7 | 97.0 | [3] 92.7 |
| Newark | 102.7 | 101.9 | 99.1 | Louisville | 101.4 | 99.7 | 95.3 |
| New York | 102.3 | 101.6 | 98.4 | Memphis | 99.8 | [3] 98.2 | 93.9 |
| Philadelphia | 100.1 | 97.0 | 94.8 | Mobile | 104.2 | 102.9 | [3] 98.1 |
| Pittsburgh | 103.6 | 101.1 | 96.8 | West South Central: | | | |
| Rochester | 105.0 | 103.1 | 100.3 | Dallas | 96.4 | 95.7 | 92.5 |
| Scranton | 102.9 | [3] 100.4 | 98.3 | Houston | 105.0 | 104.2 | 98.6 |
| East North Central: | | | | Little Rock | 100.1 | 98.4 | 97.1 |
| Chicago | 101.9 | 100.5 | 98.3 | New Orleans | 105.2 | 105.9 | 101.3 |
| Cincinnati | 100.9 | 100.1 | 94.4 | Mountain: | | | |
| Cleveland | 103.4 | [3] 102.1 | 97.1 | Butte | 103.8 | 101.3 | 98.4 |
| Columbus, Ohio | 98.6 | 96.9 | 92.9 | Denver | 99.5 | 98.6 | 96.7 |
| Detroit | 100.7 | 101.3 | 96.6 | Salt Lake City | 103.5 | 101.0 | 97.4 |
| Indianapolis | 103.5 | 101.1 | 95.6 | Pacific: | | | |
| Milwaukee | 101.1 | 99.2 | 96.8 | Los Angeles | 105.5 | 102.7 | 96.5 |
| Peoria | 104.0 | 103.5 | 99.4 | Portland, Oreg | 106.8 | 105.5 | 98.2 |
| Springfield, Ill | 100.8 | 100.3 | 97.4 | San Francisco | 104.9 | 103.5 | 95.5 |
| West North Central: | | | | Seattle | 108.0 | 104.7 | 99.8 |
| Kansas City | 97.9 | 97.4 | 92.3 | | | | |
| Minneapolis | 103.1 | 101.5 | 95.7 | | | | |
| Omaha | 102.1 | 100.4 | 98.3 | | | | |
| St. Louis | 102.4 | 101.4 | 96.7 | | | | |
| St. Paul | 101.5 | [3] 99.6 | 96.0 | | | | |

[1] Aggregate costs of 54 foods in each city, weighted to represent total purchases of families of wage earners and lower-salaried workers, have been combined for the United States with the use of population weights. Primary use is for time-to-time comparisons rather than place-to-place comparisons.

[2] Preliminary.

[3] Revised.

# *Wholesale Prices*

## WHOLESALE PRICES IN MAY 1941 [1]

WIDESPREAD price advances in wholesale markets continued during May. Led by sharp increases in prices for agricultural commodities and petroleum products, the Bureau of Labor Statistics' comprehensive index of approximately 900 price series rose 2 percent to a 3½-year peak. The general index for May stands at 84.9 percent of the 1926 average, a gain of 5 percent since the beginning of the year and 8.3 percent higher than for May 1940.

The upward movement was led by an increase of 3.7 percent for fuel and lighting materials, which reflected the shortage of shipping facilities. Largely because of the Department of Agriculture's plan to support farm product prices the farm products group index rose 2.7 percent. Textile products advanced 2.5 percent; hides and leather products, 2.4 percent; chemicals and allied products, 2.2 percent; foods, 2.1 percent; miscellaneous commodities, 1.3 percent; housefurnishing goods, 1.1 percent; building materials, 0.3 percent; and metals and metal products, 0.2 percent.

Seven of the 10 major commodity groups were substantially above their year ago levels. Farm products, foods, and textile products were more than 10 percent higher than in May 1940 and hides and leather products, fuel and lighting materials, building materials, and chemicals and allied products advanced 5 percent or more. Metals and metal products, housefurnishing goods, and miscellaneous commodities rose less than 5 percent since May of last year. Marked increases occurred in certain important subgroups during the year. The industrial grades of fats and oils were about 75 percent higher than a year ago. Cotton goods rose 31 percent. Increases of more than 20 percent were recorded for livestock; for "other foods" including imports such as coffee, tea, cocoa, sugar, and pepper; for "other textile products" which includes burlap and hemp; for lumber; and for drugs and pharmaceuticals.

Average wholesale prices of raw materials advanced 2.8 percent during May to more than 10 percent above a year ago. Semimanufactured commodities rose 1.5 percent and were also 10 percent higher

[1] More detailed information on wholesale prices is given in the Wholesale Price pamphlet and will be furnished upon request.

than for last May. Manufactured commodity prices increased 1.9 percent from April to May and 7 percent in the past year.

The further advance of 2.7 percent in farm product prices in May brought the group index to the highest level since October 1937. Grains rose over 5 percent as higher prices were reported for barley, corn, wheat, and rye. Oats averaged lower than in April. Livestock and poultry advanced over 2 percent as a result of substantial increases in prices for hogs, cows, lambs, and live poultry in the New York market. Quotations were lower for steers, sheep, and live poultry at Chicago. Cotton advanced 14 percent during the month and prices were also higher for clover and timothy hay, peanuts, eggs, milk at Chicago and San Francisco, lemons, dried beans, onions, potatoes, and wool. Alfalfa hay, hops, flaxseed, fresh milk at New York, oranges, and sweet potatoes declined. Cattle feed dropped 4 percent during the month.

Average prices of foods in wholesale markets rose 2.1 percent. Meats were 1.9 percent higher and cereal products 1.8 percent. Other important increases were from 15 to 20 percent for vegetable oils, 15 percent for lard, about 10 percent for coffee and pepper, 6 percent for butter, cheese, and evaporated milk, and 5 percent for flour. Sharp increases were also reported in prices for both canned and dried fruits and for canned vegetables, also for powdered milk, rye flour, corn meal, rice, cocoa beans, molasses, oleo oil, raw sugar, edible tallow, and tea. Increases of about 7 percent were recorded for lamb, bacon, and veal. Fresh beef at Chicago, pork, and dressed poultry prices were higher than a month ago. Granulated sugar, oatmeal, mutton, and fresh beef at New York declined.

Sharp increases in prices for hides, skins, and leather brought the hides and leather products group index to 106.4, the highest point since the fall of 1937. Prices of certain leather manufactures, such as luggage and harness, were above the April level.

The textile products group index rose 2½ percent to the highest point since May 1930, due largely to additional gains in prices for cotton goods, particularly drills, duck, osnaburg, print cloth, tire fabrics, carded yarns, broadcloth, denim, gingham, muslin, sheeting, shirting, ticking, percale, and flannel. Wholesale prices of men's clothing were 2.5 percent higher and hosiery and underwear rose 0.3 percent. Woolen and worsted goods advanced 0.9 percent and prices were higher for raw silk, burlap, hemp, carpet yarns, artificial leather, and cordage.

The sharp rise in the fuel and lighting materials group index was a result of increased prices for crude petroleum and petroleum products, also for coke and bituminous coal. Anthracite declined slightly.

Minor advances in prices of certain types of farm machinery, for trucks, for bolts, rivets, butts, galvanized pipe, and for pig tin, babbitt

metal, and solder accounted for the slight advance in the metals and metal products group index. Quicksilver, on the other hand, declined.

In the building materials group, prices were higher for prepared paints and paint materials, including white lead, tung and linseed oils, rosin, shellac, and turpentine. Brick, gravel, and prepared roofing advanced slightly and prices were also higher for certain types of lumber, particularly birch, gum, maple, poplar, hemlock, redwood, cedar, cypress, and yellow pine dimension, finish, and timbers. Quotations were lower for white oak, sugar pine, Ponderosa pine boards, and for yellow pine boards, dimension, drop siding, flooring, and lath.

An increase of 16.3 percent for the group of industrial fats and oils was largely responsible for the increase of 2.2 percent in the chemicals and allied products group index, although sharp increases were also reported in prices for castor oil, ergot, iodine, nux vomica, potassium iodide, oleic and stearic acids, denatured alcohol, glycerine, and tin tetrachloride.

Higher prices for blankets, rugs, mattresses, pillow cases, sheets, tablecloths, window shades, sewing machines, stoves, washing machines, electric refrigerators, and furniture caused the housefurnishing goods group index to rise 1.1 percent.

Average prices for crude rubber advanced 4.6 percent during the month. Paper and pulp rose 2.3 percent and soap and cylinder oils also advanced.

Index numbers for the groups and subgroups of commodities for April and May 1941 and for April 1940 and the percentage changes from a month ago and a year ago are shown in table 1.

TABLE 1.—*Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities, May 1941 With Comparisons for April 1941 and May 1940*

[1926=100]

| Group and subgroup | May 1941 | April 1941 | Change from a month ago | May 1940 | Change from a year ago |
|---|---|---|---|---|---|
| | | | *Percent* | | *Percent* |
| **All commodities** | 84.9 | 83.2 | +2.0 | 78.4 | +8.3 |
| **Farm products** | 76.4 | 74.4 | +2.7 | 67.9 | +12.5 |
| Grains | 74.5 | 70.9 | +5.1 | 71.2 | +4.6 |
| Livestock and poultry | 88.0 | 86.2 | +2.1 | 69.6 | +26.4 |
| Other farm products | 69.5 | 67.8 | +2.5 | 65.5 | +6.1 |
| **Foods** | 79.5 | 77.9 | +2.1 | 71.4 | +11.3 |
| Dairy products | 81.6 | 81.0 | +.7 | 72.8 | +12.1 |
| Cereal products | 78.2 | 76.8 | +1.8 | 81.0 | −3.5 |
| Fruits and vegetables | 64.0 | 63.8 | +.3 | 69.2 | −7.5 |
| Meats | 87.2 | 85.6 | +1.9 | 73.8 | +18.2 |
| Other foods | 76.9 | 73.9 | +4.1 | 62.2 | +23.6 |
| **Hides and leather products** | 106.4 | 103.9 | +2.4 | 101.3 | +5.0 |
| Shoes | 110.1 | 107.8 | +2.1 | 107.9 | +2.0 |
| Hides and skins | 110.3 | 104.7 | +5.3 | 92.2 | +19.6 |
| Leather | 96.9 | 95.6 | +1.4 | 93.6 | +3.5 |
| Other leather products | 101.7 | 100.5 | +1.2 | 100.0 | +1.7 |

TABLE 1.—*Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities, May 1941 With Comparisons for April 1941 and May 1940*—Continued

[1926=100]

| Group and subgroup | May 1941 | April 1941 | Change from a month ago | May 1940 | Change from a year ago |
|---|---|---|---|---|---|
| | | | *Percent* | | *Percent* |
| **Textile products** | **83.0** | **81.0** | **+2.5** | **72.9** | **+13.9** |
| Clothing | 90.9 | 88.7 | +2.5 | 85.0 | +6.9 |
| Cotton goods | 91.0 | 86.8 | +4.8 | 69.4 | +31.1 |
| Hosiery and underwear | 61.3 | 61.1 | +.3 | 61.3 | 0 |
| Rayon | 29.5 | 29.5 | 0 | 29.5 | 0 |
| Silk | 49.1 | 48.3 | +1.7 | 47.0 | +4.5 |
| Woolen and worsted goods | 94.1 | 93.3 | +.9 | 83.4 | +12.8 |
| Other textile products | 92.0 | 89.3 | +3.0 | 75.7 | +21.5 |
| **Fuel and lighting materials** | **75.6** | **72.9** | **+3.7** | **71.7** | **+5.4** |
| Anthracite | 80.7 | 80.9 | −.2 | 76.5 | +5.5 |
| Bituminous coal | 102.9 | 100.0 | +2.9 | 95.8 | +7.4 |
| Coke | 120.4 | 113.8 | +5.8 | 109.6 | +9.9 |
| Electricity | (1) | (1) | | 73.9 | |
| Gas | 80.1 | 78.1 | +2.6 | 84.4 | −5.1 |
| Petroleum and products | 55.3 | 51.9 | +6.6 | 50.7 | +9.1 |
| **Metals and metal products** | **98.1** | **97.9** | **+.2** | **94.5** | **+3.8** |
| Agricultural implements | 92.4 | 92.3 | +.1 | 92.5 | −.1 |
| Farm machinery | 93.5 | 93.5 | 0 | 93.7 | −.2 |
| Iron and steel | 96.1 | 95.9 | +.2 | 94.2 | +2.0 |
| Motor vehicles | 100.2 | 100.1 | +.1 | 94.8 | +5.7 |
| Nonferrous metals | 84.4 | 84.3 | +.1 | 80.3 | +5.1 |
| Plumbing and heating | 83.0 | 83.0 | 0 | 80.6 | +3.0 |
| **Building materials** | **100.4** | **100.1** | **+.3** | **92.5** | **+8.5** |
| Brick and tile | 91.9 | 91.7 | +.2 | 90.2 | +1.9 |
| Cement | 91.5 | 91.0 | +.5 | 90.5 | +1.1 |
| Lumber | 116.8 | 116.7 | +.1 | 96.0 | +21.7 |
| Paint and paint materials | 89.3 | 88.7 | +.7 | 86.0 | +3.8 |
| Plumbing and heating | 83.0 | 83.0 | 0 | 80.6 | +3.0 |
| Structural steel | 107.3 | 107.3 | 0 | 107.3 | 0 |
| Other building materials | 96.3 | 95.9 | +.4 | 92.2 | +4.4 |
| **Chemicals and allied products** | **83.6** | **81.8** | **+2.2** | **76.7** | **+9.0** |
| Chemicals | 86.8 | 86.4 | +.5 | 85.1 | +2.0 |
| Drugs and pharmaceuticals | 98.7 | 97.5 | +1.2 | 82.0 | +20.4 |
| Fertilizer materials | 71.1 | 71.0 | +.1 | 70.8 | +.4 |
| Mixed fertilizers | 73.2 | 73.2 | 0 | 73.0 | +.3 |
| Oils and fats | 80.6 | 69.3 | +16.3 | 46.1 | +74.8 |
| **Housefurnishing goods** | **91.4** | **90.4** | **+1.1** | **88.5** | **+3.3** |
| Furnishings | 98.0 | 97.1 | +.9 | 94.8 | +3.4 |
| Furniture | 84.3 | 83.4 | +1.1 | 81.9 | +2.9 |
| **Miscellaneous** | **79.6** | **78.6** | **+1.3** | **77.7** | **+2.4** |
| Automobile tires and tubes | 58.8 | 58.8 | 0 | 58.0 | +1.4 |
| Cattle feed | 81.8 | 85.2 | −4.0 | 93.3 | −12.3 |
| Paper and pulp | 96.7 | 94.5 | +2.3 | 90.7 | +6.6 |
| Rubber, crude | 49.8 | 47.6 | +4.6 | 44.1 | +12.9 |
| Other miscellaneous | 85.6 | 84.3 | +1.5 | 84.3 | +1.5 |
| **Raw materials** | **79.7** | **77.5** | **+2.8** | **72.0** | **+10.7** |
| **Semimanufactured articles** | **86.4** | **85.1** | **+1.5** | **78.3** | **+10.3** |
| **Manufactured products** | **87.1** | **85.5** | **+1.9** | **81.3** | **+7.1** |
| **All commodities other than farm products** | **86.6** | **85.0** | **+1.9** | **80.5** | **+7.6** |
| **All commodities other than farm products and foods** | **87.4** | **85.9** | **+1.7** | **82.5** | **+5.9** |

[1] Data not yet available.

## *Index Numbers by Commodity Groups, 1926 to May 1941*

Index numbers of wholesale prices by commodity groups for selected years from 1926 to 1940, inclusive, and by months from May 1940 to May 1941, inclusive, are shown in table 2.

TABLE 2.—*Index Numbers of Wholesale Prices by Groups of Commodities*

[1926=100]

| Year and month | Farm products | Foods | Hides and leather products | Textile products | Fuel and lighting | Metals and metal products | Building materials | Chemicals and allied products | House-furnishing goods | Miscellaneous | All commodities |
|---|---|---|---|---|---|---|---|---|---|---|---|
| By years: | | | | | | | | | | | |
| 1926 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1929 | 104.9 | 99.9 | 109.1 | 90.4 | 83.0 | 100.5 | 95.4 | 94.0 | 94.3 | 82.6 | 95.3 |
| 1932 | 48.2 | 61.0 | 72.9 | 54.9 | 70.3 | 80.2 | 71.4 | 73.9 | 75.1 | 64.4 | 64.8 |
| 1933 | 51.4 | 60.5 | 80.9 | 64.8 | 66.3 | 79.8 | 77.0 | 72.1 | 75.8 | 62.5 | 65.9 |
| 1936 | 80.9 | 82.1 | 95.4 | 71.5 | 76.2 | 87.0 | 86.7 | 78.7 | 81.7 | 70.5 | 80.8 |
| 1937 | 86.4 | 85.5 | 104.6 | 76.3 | 77.6 | 95.7 | 95.2 | 82.6 | 89.7 | 77.8 | 86.3 |
| 1938 | 68.5 | 73.6 | 92.8 | 66.7 | 76.5 | 95.7 | 90.3 | 77.0 | 86.8 | 73.3 | 78.6 |
| 1939 | 65.3 | 70.4 | 95.6 | 69.7 | 73.1 | 94.4 | 90.5 | 76.0 | 86.3 | 74.8 | 77.1 |
| 1940 | 67.7 | 71.3 | 100.8 | 73.8 | 71.7 | 95.8 | 94.8 | 77.0 | 88.5 | 77.3 | 78.6 |
| By months: | | | | | | | | | | | |
| 1940: | | | | | | | | | | | |
| May | 67.9 | 71.4 | 101.3 | 72.9 | 71.7 | 94.5 | 92.5 | 76.7 | 88.5 | 77.7 | 78.4 |
| June | 66.2 | 70.3 | 99.2 | 72.6 | 71.4 | 94.7 | 92.4 | 76.1 | 88.5 | 77.3 | 77.5 |
| July | 66.5 | 70.3 | 99.0 | 72.4 | 71.1 | 95.1 | [1] 92.5 | 77.0 | 88.5 | 77.7 | 77.7 |
| August | 65.6 | 70.1 | 96.9 | 72.3 | 71.1 | 94.9 | [1] 93.3 | 76.7 | 88.5 | 76.7 | 77.4 |
| September | 66.2 | 71.5 | 98.3 | 72.5 | 71.0 | 95.4 | [1] 95.6 | 76.8 | 88.5 | 76.5 | 78.0 |
| October | 66.4 | 71.1 | 100.4 | 73.6 | 71.6 | 97.3 | 97.8 | 76.9 | 88.6 | 76.9 | 78.7 |
| November | 68.2 | 72.5 | 102.3 | 74.5 | 71.9 | 97.6 | 98.9 | 77.5 | 88.6 | 77.5 | 79.6 |
| December | 69.7 | 73.5 | 102.3 | 74.8 | 71.7 | 97.6 | 99.3 | 77.7 | 88.9 | 77.3 | 80.0 |
| 1941: | | | | | | | | | | | |
| January | 71.6 | 73.7 | 102.4 | 75.2 | 72.1 | 97.7 | 99.6 | 78.6 | 89.0 | 77.1 | 80.8 |
| February | 70.3 | 73.5 | 101.6 | 76.4 | 72.1 | 97.6 | 99.3 | 78.5 | 89.1 | 76.9 | 80.6 |
| March | 71.6 | 75.2 | 102.6 | 78.4 | 72.0 | 97.7 | 99.5 | 79.8 | 89.5 | 77.6 | 81.5 |
| April | 74.4 | 77.9 | 103.9 | 81.0 | 72.9 | 97.9 | 100.1 | 81.8 | 90.4 | 78.6 | 83.2 |
| May | 76.4 | 79.5 | 106.4 | 83.0 | 75.6 | 98.1 | 100.4 | 83.6 | 91.4 | 79.6 | 84.9 |

[1] Revised.

The price trend for specified years and months since 1926 is shown in table 3 for the following groups of commodities: Raw materials, semimanufactured articles, manufactured products, commodities other than farm products, and commodities other than farm products and foods. The list of commodities included under the classifications "raw materials," "semimanufactured articles," and "manufactured products" was given in Serial No. R. 1251, Wholesale Prices, December and Year 1940.

TABLE 3.—*Index Numbers of Wholesale Prices by Special Groups of Commodities*

[1926=100]

| Year and month | Raw materials | Semimanufactured articles | Manufactured products | All commodities other than farm products | All commodities other than farm products and foods |
|---|---|---|---|---|---|
| By years: | | | | | |
| 1926 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1929 | 97.5 | 93.9 | 94.5 | 93.3 | 91.6 |
| 1932 | 55.1 | 59.3 | 70.3 | 68.3 | 70.2 |
| 1933 | 56.5 | 65.4 | 70.5 | 69.0 | 71.2 |
| 1936 | 79.9 | 75.9 | 82.0 | 80.7 | 79.6 |
| 1937 | 84.8 | 85.3 | 87.2 | 86.2 | 85.3 |
| 1938 | 72.0 | 75.4 | 82.2 | 80.6 | 81.7 |
| 1939 | 70.2 | 77.0 | 80.4 | 79.5 | 81.3 |
| 1940 | 71.9 | 79.1 | 81.6 | 80.8 | 83.0 |
| By months: | | | | | |
| 1940: | | | | | |
| May | 72.0 | 78.3 | 81.3 | 80.5 | 82.5 |
| June | 70.7 | 77.9 | 80.5 | 79.8 | 82.2 |
| July | 70.7 | 77.8 | 80.9 | 80.0 | 82.3 |
| August | 69.8 | 77.0 | 81.0 | 79.9 | 82.0 |
| September | 70.5 | 77.6 | 81.5 | 80.4 | 82.3 |
| October | 71.4 | 79.4 | 82.1 | 81.3 | 83.5 |
| November | 72.6 | 80.7 | 82.6 | 81.9 | 84.1 |
| December | 73.6 | 80.7 | 82.8 | 82.1 | 84.1 |
| 1941: | | | | | |
| January | 74.6 | 81.3 | 83.5 | 82.7 | 84.3 |
| February | 74.0 | 81.6 | 83.5 | 82.7 | 84.4 |
| March | 75.3 | 83.4 | 84.2 | 83.6 | 84.9 |
| April | 77.5 | 85.1 | 85.5 | 85.0 | 85.9 |
| May | 79.7 | 86.4 | 87.1 | 86.6 | 87.4 |

## *Weekly Fluctuations*

Weekly fluctuations in the major commodity group classifications during April and May are shown by the index numbers in table 4.

TABLE 4.—*Weekly Index Numbers of Wholesale Prices by Commodity Groups, April and May 1941*

[1926=100]

| Commodity group | May 31 | May 24 | May 17 | May 10 | May 3 | Apr. 26 | Apr. 19 | Apr. 12 | Apr. 5 |
|---|---|---|---|---|---|---|---|---|---|
| All commodities | 85.2 | 85.0 | 84.6 | 84.0 | 83.2 | 83.0 | 83.0 | 82.9 | 82.2 |
| Farm products | 77.3 | 77.3 | 76.3 | 75.1 | 74.4 | 74.3 | 75.0 | 74.9 | 72.7 |
| Foods | 79.2 | 79.5 | 79.7 | 79.0 | 78.0 | 78.1 | 77.8 | 77.5 | 76.7 |
| Hides and leather products | 107.8 | 106.9 | 106.1 | 105.3 | 105.0 | 104.7 | 104.3 | 103.9 | 103.9 |
| Textile products | 83.2 | 82.9 | 82.4 | 81.4 | 80.9 | 80.7 | 80.5 | 80.4 | 80.1 |
| Fuel and lighting materials | 77.7 | 76.2 | 75.6 | 74.9 | 74.2 | 73.5 | 73.3 | 73.4 | 73.2 |
| Metals and metal products | 98.2 | 98.2 | 98.1 | 97.9 | 97.9 | 97.9 | 97.8 | 97.8 | 97.8 |
| Building materials | 100.5 | 100.5 | 100.2 | 100.3 | 100.3 | 100.1 | 100.0 | 99.9 | 99.8 |
| Chemicals and allied products | 83.9 | 84.2 | 83.7 | 83.1 | 82.8 | 82.6 | 82.2 | 81.7 | 80.9 |
| Housefurnishing goods | 92.7 | 92.5 | 92.3 | 92.3 | 91.9 | 91.6 | 91.6 | 91.5 | 91.5 |
| Miscellaneous | 79.7 | 79.7 | 79.4 | 79.0 | 78.5 | 78.4 | 78.4 | 78.1 | 78.0 |
| Raw materials | 80.4 | 79.9 | 79.3 | 78.4 | 77.5 | 77.1 | 77.6 | 77.4 | 76.2 |
| Semimanufactured articles | 86.7 | 86.5 | 86.4 | 85.8 | 85.1 | 85.2 | 85.0 | 84.9 | 84.6 |
| Manufactured products | 87.6 | 87.5 | 87.2 | 86.7 | 85.9 | 85.8 | 85.7 | 85.6 | 85.1 |
| All commodities other than farm products | 87.0 | 86.7 | 86.5 | 85.9 | 85.2 | 85.0 | 84.8 | 84.7 | 84.4 |
| All commodities other than farm products and foods | 88.2 | 87.7 | 87.3 | 86.9 | 86.4 | 86.1 | 86.0 | 85.9 | 85.8 |

# *Trend of Employment and Pay Rolls*

## SUMMARY OF REPORTS FOR MAY 1941

### *Total Nonagricultural Employment*

TOTAL civil nonagricultural employment was estimated at 38,283,000 in May 1941. This was above all preceding levels on record and represented gains of more than 600,000 over April and 3,120,000 over May of last year. These figures do not include CCC enrollees, workers on WPA or NYA projects, or the armed forces.

About half of the increase since April resulted from the resumption of operations in bituminous-coal mines following shut-downs in April, pending wage negotiations. Manufacturing employment also expanded substantially, the usual May decline being more than offset by increased industrial activity in many defense and nondefense industries. The only major groups to show decreases over the month were construction and trade. The decrease in the former group was due to the completion of many new army cantonments, while the decline in employment in trade reflected the lay-off of temporary workers who had been employed to handle Easter business.

All major groups showed substantial employment gains over May 1940. Manufacturing employment showed an increase of 1,761,000 wage earners, construction employment a gain of 499,000, trade a rise of 222,000 workers, and Federal, State, and local government service employment an expansion of 301,000. The armed forces of the Nation showed an increase of nearly 1,200,000 over this period.

Emergency employment decreased 33,000 over the month as a result of the following changes: An increase of 117,000 in the military service and decreases of 119,000 on projects operated by the Works Projects Administration, 26,000 on the out-of-school work program of the National Youth Administration, and 5,000 in the Civilian Conservation Corps.

### *Industrial and Business Employment*

Of the 157 manufacturing industries surveyed, 131 reported increases in employment from April to May, and 141 showed increases in pay rolls. As in past months, most of the gains were larger than seasonal

or contraseasonal. Of the 16 nonmanufacturing industries regularly covered, 12 showed employment gains and 13 showed pay-roll increases. For manufacturing as a whole, employment advanced contraseasonally 1.8 percent (172,600 wage earners), and weekly factory pay rolls showed a larger-than-seasonal increase of 6.9 percent ($17,642,000). These increases raised the employment and pay-roll indexes for all manufacturing industries combined to the highest levels on record. The typical April–May changes in factory employment and pay rolls are a decrease of 0.8 percent and an increase of 0.2 percent, respectively. A comparison with May of last year showed factory employment had climbed 21.8 percent, and factory pay rolls had increased 47.2 percent, the larger gain in pay rolls than in employment being due primarily to wage-rate increases, increased hours, and overtime payments. The durable-goods group of manufacturing industries, in which defense activity is largely concentrated, showed employment gains of 2.7 percent over the month and 32.3 percent over the year, with corresponding pay-roll increases of 8.7 percent and 65.1 percent. The gains in the nondurable-goods group as a whole were much less pronounced; namely, 0.8 percent and 12.4 percent in employment and 4.2 percent and 26.8 percent in pay rolls. The employment and pay-roll indexes for these two groups were likewise at the highest levels on record. Employment in key defense industries continued to expand, and many additional industries affected by orders for war materials also reported substantial employment gains. Among them were foundries and machine shops, electrical machinery, and steel. Other industries showing large employment gains were meat packing, cotton goods, beverages, radios and phonographs, baking, brick, tile, and terra cotta, furniture, and woolen and worsted goods. Decreases, for the most part seasonal, were reported for fertilizers, women's clothing, and shoes.

In wholesale trade, employment showed a small seasonal decrease of 0.2 percent and pay rolls a seasonal gain of 1.5 percent. Seasonal decreases in employment were shown for farm products (30.9 percent), farm supplies (5.4 percent), and assemblers and country buyers (9.1 percent). Among the wholesale lines showing substantial gains were automotive (2.4 percent), general merchandise (1.9 percent), iron and steel scrap (3.2 percent), machinery, equipment, and supplies (1.7 percent), and metals and minerals (2.6 percent).

Employment in retail trade establishments fell 1.8 percent, principally because of the release of large numbers of temporary workers employed in mid-April to handle Easter sales. Despite this decline, retail employment was 5.3 percent above that of May a year ago, and pay rolls were 9.7 percent higher. In the general merchandising and apparel groups under retail trade, employment was reduced 5.2 percent and 9.1 percent, respectively, between April and May.

The resumption of operations in May following the sharp curtailment in April during wage negotiations accounted for the increase of 282 percent in employment and 528 percent in weekly pay rolls in bituminous-coal mines. Increased demand for metals in the manufacture of defense equipment resulted in a contraseasonal employment increase of 1.5 percent in metal mining. Quarrying employment showed a larger-than-seasonal gain of 6.4 percent, and each of the three public-utility industries surveyed showed larger-than-seasonal employment gains, ranging from 1.0 percent to 1.7 percent. Laundry and dyeing and cleaning establishments increased their working forces by about 3 percent and year-round hotels by 1.6 percent.

Employment in private building construction showed a smaller-than-seasonal gain of 5.4 percent from April to May, following the sharp rises of recent months. Compared with May of last year, the level of employment in this industry in the current month was 24.0 percent higher. Gains were shown in each of the nine geographic divisions ranging from 11.9 percent in the Mountain States to 2.2 percent in the West South Central States. General building contractors as a group increased employment 4.6 percent, and the special trades group increased employment 6.1 percent. Of the 15 special building trades surveyed, 13 reported increased employment. The special trades which showed increased employment were plastering and lathing, painting and decorating, building insulation, carpentering, brick and stone masonry, electrical contracting, tile and terrazzo contracting, structural steel erection, elevator installation and repairing, plumbing and heating, roofing and sheet metal, ornamental iron contracting, and excavating. The trades showing decreased employment were wood flooring and glazing.

A preliminary report of the Interstate Commerce Commission for class I steam railroads showed an employment gain of 4.1 percent between April and May, the total number employed in May being 1,124,719. Corresponding pay-roll figures for May were not available when this report was prepared. For April they were $174,338,424, a decrease of $2,200,162 since March. This decrease was due to the fact that April operations covered only 30 days, whereas the March pay roll covered 31 days.

*Hours and earnings.*—The average hours worked per week by manufacturing wage earners were 40.8 in May, an increase of 2.1 percent since April. The corresponding average hourly earnings were 72.6 cents, a gain of 2.5 percent over the preceding month. The average weekly earnings of factory wage earners (both full and part-time combined) were $30.69, an increase of 5.0 percent since April. Of the 16 nonmanufacturing industries regularly surveyed, 12 reported increases in average weekly earnings. Of the 14 nonmanufacturing industries for which man-hours are available 8 showed gains in average

hours worked per week and 13 reported increases in average hourly earnings.

Wage-rate increases averaging 8.9 percent and affecting 722,185 wage earners were reported by 1,927 manufacturing plants out of a reporting sample of 33,791 plants employing 7,104,962 wage earners. Large numbers of workers received pay raises in the following industries: Woolen and worsted goods (87,845), electrical machinery (90,182), meat packing (52,656), steel (44,576), agricultural implements (31,750), foundries and machine-shop products (33,198), chemicals (20,540), engines (18,747), and sawmills (29,468).

TABLE 1.—*Employment, Pay Rolls, and Earnings in All Manufacturing Industries Combined and in Nonmanufacturing Industries, May 1941 (Preliminary Figures)*

| Industry | Employment | | | Pay rolls | | | Average weekly earnings | | |
|---|---|---|---|---|---|---|---|---|---|
| | Index, May 1941 | Percentage change from— | | Index, May 1941 | Percentage change from— | | Average in May 1941 | Percentage change from— | |
| | | April 1941 | May 1940 | | April 1941 | May 1940 | | April 1941 | May 1940 |
| All manufacturing industries combined [1] | (*1923–25 =100*) 124.8 | +1.8 | +21.8 | (*1923–25 =100*) 144.0 | +6.9 | +47.2 | $30.69 | +5.0 | +21.0 |
| Class I steam railroads [2] | 110.2 | +4.1 | +11.1 | (3) | (3) | (3) | (3) | (3) | (3) |
| Coal mining: | (*1929 =100*) | | | (*1929 =100*) | | | | | |
| Anthracite [4] | 48.6 | −.3 | −6.2 | 33.4 | +37.1 | −16.5 | 22.59 | +37.5 | −11.0 |
| Bituminous [4] | 89.9 | +282.0 | +5.6 | 99.2 | +528.4 | +31.8 | 29.63 | +64.5 | +17.9 |
| Metalliferous mining [5] | 78.3 | +1.5 | +13.2 | 81.8 | +4.1 | +24.6 | 32.91 | +2.6 | +10.0 |
| Quarrying and nonmetallic mining | 51.3 | +6.4 | +9.4 | 53.6 | +14.0 | +25.3 | 26.10 | +7.1 | +14.6 |
| Crude-petroleum production | 60.4 | +.6 | −4.5 | 59.6 | +3.2 | +1.5 | 36.22 | +2.6 | +6.3 |
| Public utilities: | | | | | | | | | |
| Telephone and telegraph [6] | 84.6 | +1.7 | +9.5 | 109.2 | +2.0 | +10.5 | [7] 31.63 | +.2 | +.9 |
| Electric light and power [8] | 92.3 | +1.1 | +1.9 | 110.3 | +2.5 | +5.8 | [7] 36.46 | +1.4 | +3.8 |
| Street railways and busses [6 8] | 68.9 | +1.0 | +.8 | 73.0 | +1.3 | +5.4 | [7] 34.49 | +.3 | +4.5 |
| Trade: | | | | | | | | | |
| Wholesale [9] | 92.3 | −.2 | +3.8 | 84.6 | +1.5 | +9.4 | [7] 31.88 | +1.6 | +5.3 |
| Retail [9] | 96.0 | −1.8 | +5.3 | 91.5 | −.2 | +9.7 | [7] 21.92 | +1.6 | +4.3 |
| Hotels (year-round) [4 10] | 96.8 | +1.6 | +3.6 | 88.4 | +1.5 | +6.6 | [7] 15.86 | −.1 | +2.9 |
| Laundries [4] | 108.4 | +3.4 | +9.4 | 98.9 | +3.2 | +11.7 | 18.95 | −.2 | +2.2 |
| Dyeing and cleaning [4] | 120.7 | +3.0 | +11.0 | 95.6 | −2.2 | +12.0 | 21.77 | −5.1 | +.8 |
| Brokerage | (3) | −.6 | −14.7 | (3) | −.5 | −14.2 | [7] 38.57 | +.1 | +.6 |
| Insurance | (3) | +.2 | +1.5 | (3) | +.3 | +2.3 | [7] 37.34 | 0 | +.8 |
| Building construction | (3) | +5.4 | +24.0 | (3) | +8.0 | +33.6 | 34.87 | +2.5 | +7.7 |
| Water transportation [11] | 81.3 | +1.5 | −.5 | (3) | (3) | (3) | (3) | (3) | (3) |

[1] Indexes adjusted preliminary to 1939 Census of Manufactures. See table 9 in December 1940 "Employment and Pay Rolls" for comparable series back to January 1919.
[2] Preliminary. Source—Interstate Commerce Commission.
[3] Not available.
[4] Indexes adjusted to 1935 census. Comparable series back to January 1929 presented in January 1938 issue of "Employment and Pay Rolls." See also table 7 of October 1940 pamphlet for revised figures for anthracite mining February to September 1940, inclusive.
[5] See table 7 of February 1941 pamphlet for revised figures January 1938 to January 1941.
[6] Retail-trade indexes adjusted to 1935 census and public utility indexes to 1937 census. Not comparable with indexes published in pamphlets prior to January 1940 or in the Monthly Labor Review prior to April 1940. Revised series available upon request.
[7] Average weekly earnings not strictly comparable with figures published in issues of the pamphlet dated earlier than January 1938, or in the Monthly Labor Review dated earlier than April 1938 (except for the January figures appearing in the March issue), as they now exclude corporation officers, executives, and other employees whose duties are mainly supervisory.
[8] Covers street railways and trolley and motorbus operations of subsidiary, affiliated, and successor companies.
[9] Indexes adjusted to 1933 census. Comparable series in November 1934 and subsequent issues of pamphlet or February 1935 and subsequent issues of Monthly Labor Review.
[10] Cash payments only; the additional value of board, room, and tips cannot be computed.
[11] Based on estimates prepared by the United States Maritime Commission.

Wage-rate changes reported for nonmanufacturing industries affected 61,933 workers exclusive of bituminous-coal miners. In addition, it is estimated that nearly 400,000 bituminous-coal miners were granted wage-rate increases averaging approximately 18 percent. As the Bureau's survey does not cover all establishments in an industry and furthermore, as some firms may have failed to report wage changes, these figures should not be construed as representing the total number of wage changes occurring in manufacturing and nonmanufacturing industries.

Employment and pay-roll indexes and average weekly earnings for May 1941 are given in table 1 for all manufacturing industries combined and selected nonmanufacturing industries, for water transportation, and for class I railroads. Percentage changes over the month and year intervals are also given.

## *Public Employment*

Employment on construction projects financed from appropriations to regular Federal agencies declined 75,000 in the month ending May 15. On defense construction, curtailment of employment on troop cantonments was partially offset by sizable gains on ship construction, airports, and residential building construction. The number of persons employed on all defense projects during the month totaled 609,000. Nondefense projects, with a large seasonal gain on Federal-aid roads, furnished employment to 206,000 men, an increase of 20,000 from the preceding month. Wage payments of $107,127,000 to the 815,000 men employed on defense and nondefense projects were $8,782,000 less than in April.

Contractors on low-rent projects of the United States Housing Authority increased employment by 3,000 in the month ending May 15. Approximately 300 additional building-trades workers were given employment on defense housing and 2,700 were added to pay rolls on nondefense housing. Wage payments of $3,959,000 to the 42,000 workers employed on all projects were $66,000 more than in the month ending April 15.

Employment on construction projects financed by the Public Works Administration showed a slight seasonal increase during the month ending May 15. The 11,200 men employed were paid $1,370,000.

Construction projects financed by the Reconstruction Finance Corporation furnished employment to an additional 850 workers in the month ending May 15. The increase on defense projects amounted to 725 and on nondefense projects to 125. Wage payments to the 9,250 men at work on both types of work totaled $1,262,000.

Further curtailment of employment on work-relief projects operated by the Work Projects Administration was reported in May. Em-

ployment on all projects under this program totaled 1,447,000, a decrease of 119,000 from April. Approximately 414,000 persons were at work on defense projects and 1,033,000 on nondefense projects. Total pay rolls were $86,100,000. The number of persons at work on Federal agency projects financed by the Work Projects Administration declined 4,000 in May. Wage payments to the 53,000 persons employed amounted to $2,638,000.

The National Youth Administration reported decreases on both the student-work program and the out-of-school work program. Employment on the student program in May totaled 464,000 and on the out-of-school program 399,000. Wage payments on the former were $3,383,000 and on the latter, $8,209,000.

Employment in camps of the Civilian Conservation Corps showed a decline of 5,000 in May. Of the 261,300 persons on the pay roll, 226,000 were enrollees; 1,500, educational advisers; 100, nurses; and 33,700, supervisory and technical employees. Pay-roll disbursements of $12,243,000 were $96,000 less than in April.

In the regular services of the Federal Government sizable increases were again reported in the executive and military branches and slight increases in the legislative and judicial branches. Employment in the War Department increased almost 35,000 in May and the Navy Department showed a gain of 10,000. Increased employment was also reported in the Post Office Department, the Department of the Interior, the Department of Agriculture, and the Tennessee Valley Authority.

Employment on State-financed road projects showed a seasonal gain of 29,000 in May. Of the 174,000 on the pay roll, 55,000 were engaged in the construction of new roads and 119,000 on maintenance. Pay-roll disbursements of $14,671,000 were $2,859,000 more than in April.

A summary of employment and pay-roll data in the regular Federal services and on projects financed wholly or partially from Federal funds is given in table 2.

TABLE 2.—*Summary of Employment and Pay Rolls in Regular Federal Services and on Projects Financed Wholly or Partially from Federal Funds May 1941 (Preliminary Figures)*

| Class | Employment | | | Pay Rolls | | |
|---|---|---|---|---|---|---|
| | May 1941 | April 1941 | Percentage change | May 1941 | April 1941 | Percentage change |
| Federal services: | | | | | | |
| Executive [1] | 1,306,333 | 1,251,283 | +4.4 | $198,382,389 | $189,213,464 | +4.8 |
| Judicial | 2,517 | 2,505 | +.5 | 642,704 | 641,009 | +.3 |
| Legislative | 6,045 | 6,015 | +.5 | 1,330,846 | 1,320,148 | +.8 |
| Military | 1,662,428 | [2] 1,545,689 | +7.6 | 96,262,203 | [2] 93,000,983 | +3.5 |
| Construction projects: | | | | | | |
| Financed by regular Federal appropriations | 815,197 | 890,050 | −8.4 | 107,127,440 | 115,909,892 | −7.6 |
| Defense | 608,987 | 703,802 | −13.5 | 86,371,611 | 97,822,631 | −11.7 |
| Other | 206,210 | 186,248 | +10.7 | 20,755,829 | 18,087,261 | +14.8 |
| USHA low-rent housing | 42,000 | 38,970 | +7.8 | 3,959,000 | 3,892,911 | +1.7 |
| Defense | 6,500 | 6,230 | +4.3 | 630,000 | 603,642 | +4.4 |
| Other | 35,500 | 32,740 | +8.4 | 3,329,000 | 3,289,269 | +1.2 |
| Financed by PWA [3] | 11,200 | 10,997 | +1.8 | 1,369,700 | 1,338,312 | +2.3 |
| Financed by RFC [4] | 9,258 | 8,403 | +10.2 | 1,261,547 | 1,135,134 | +11.1 |
| Defense | 6,852 | 6,127 | +11.8 | 980,240 | 861,486 | +13.8 |
| Other | 2,406 | 2,276 | +5.7 | 281,307 | 273,648 | +2.8 |
| Federal agency projects financed by Work Projects Administration | 53,400 | 57,827 | −7.7 | 2,638,000 | 2,696,470 | −2.2 |
| Defense | 22,600 | 27,256 | −17.1 | 1,181,600 | 1,273,492 | −7.2 |
| Other | 30,800 | 30,571 | +.7 | 1,456,400 | 1,422,978 | +2.3 |
| Projects operated by WPA | 1,446,994 | 1,566,325 | −7.6 | 86,100,000 | 92,325,962 | −6.7 |
| Defense | 414,187 | 426,400 | −2.9 | [5] | [5] | |
| Other | 1,032,807 | 1,139,925 | −9.4 | [5] | [5] | |
| National Youth Administration: | | | | | | |
| Student-work program | 464,493 | 480,419 | −3.3 | 3,383,355 | 3,369,480 | +.4 |
| Out-of-school work program | 399,480 | 425,302 | −6.1 | 8,208,793 | 8,486,681 | −3.3 |
| Civilian Conservation Corps | 261,357 | 266,645 | −2.0 | 12,242,700 | 12,339,002 | −.8 |

[1] Includes force-account and supervisory and technical employees shown under other classifications to the extent of 177,904 employees and pay-roll disbursements of $26,841,073 for May 1941, and 176,999 employees and pay-roll disbursements of $26,447,715 for April 1941.

[2] Revised.

[3] Data covering PWA projects financed from National Industrial Recovery Act funds, Emergency Relief Appropriation Acts of 1935, 1936, 1937 funds, and Public Works Administration Appropriation Act of 1938 funds are included. These data are not shown under projects financed by the Work Projects Administration. Includes 3,600 wage earners and $457,300 pay roll for May 1941; 3,198 wage earners and $402,329 pay roll for April 1941, covering Public Works Administration projects financed from Emergency Relief Appropriation Acts of 1935, 1936, and 1937 funds. Includes 7,300 wage earners and $891,000 pay roll for May 1941 financed from funds provided by the Public Works Administration Appropriation Act of 1938.

[4] Includes 348 employees and pay-roll disbursements of $70,313 for May 1941; 434 employees and pay-roll disbursements of $67,835 for April 1941 on projects financed by the RFC Mortgage Co.

[5] Pay-roll data not available.

## DETAILED REPORTS FOR APRIL 1941

A MONTHLY report on employment and pay rolls is published as a separate pamphlet by the Bureau of Labor Statistics. This gives detailed data regarding employment, pay rolls, working hours, and earnings for the current month for industrial and business establishments and for the various forms of public employment. This pamphlet is distributed free upon request. Its principal contents for the month of April 1941, insofar as industrial and business employment is concerned, are reproduced in this section of the Monthly Labor Review.

## *Estimates of Nonagricultural Employment*

The estimates of "Total civil nonagricultural employment," given on the first line of table 1, represent the total number of persons engaged in gainful work in the United States in nonagricultural industries, excluding military and naval personnel, persons employed on WPA or NYA projects, and enrollees in CCC camps. The series described as "Employees in nonagricultural establishments" also excludes proprietors and firm members, self-employed persons, casual workers, and persons in domestic service. The estimates for "Employees in nonagricultural establishments" are shown separately for each of seven major industry groups. Tables giving figures for each group, by months, for the period from January 1929 to date are available on request.

The figures represent the number of persons working at any time during the week ending nearest the middle of each month. The totals for the United States have been adjusted to conform to the figures shown by the 1930 Census of Occupations for the number of nonagricultural "gainful workers" less the number shown to have been unemployed for 1 week or more at the time of the census. Separate estimates for "employees in nonagricultural establishments" are shown in table 2 for each of the 48 States and the District of Columbia for March and April 1941 and April 1940. Tables showing monthly figures for each State from January 1938 to date are available on request. Because the State figures do not include employees on merchant vessels, and because of certain adjustments in the United States estimates which have not been made on a State basis, the total of the State estimates will not agree exactly with the figure for the United States as a whole.

These estimates are based in large part on industrial censuses and on regular reports of employers to the United States Bureau of Labor Statistics and to other Government agencies, such as the Interstate Commerce Commission. Data derived from employers' quarterly reports in connection with "old age and survivors' insurance," and employers' monthly reports in connection with unemployment compensation have been used extensively as a check on estimates derived from other sources, and in some industries they have provided the most reliable information available.

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TABLE 1.—*Estimates of Total Nonagricultural Employment, by Major Groups*

[In thousands]

| Industry | April 1941 (preliminary) | March 1941 | Change March to April 1941 | April 1940 | Change April 1940 to April 1941 |
|---|---|---|---|---|---|
| Total civil nonagricultural employment [1] | 37,645 | 37,227 | +418 | 34,882 | +2,763 |
| Employees in nonagricultural establishments [1 2] | 31,502 | 31,084 | +418 | 28,739 | +2,763 |
| Manufacturing [3] | 11,370 | 11,152 | +218 | 9,832 | +1,538 |
| Mining | 547 | 864 | −317 | 835 | −288 |
| Construction | 1,760 | 1,631 | +129 | 1,118 | +642 |
| Transportation and public utilities | 3,122 | 3,056 | +66 | 2,956 | +166 |
| Trade | 6,457 | 6,259 | +198 | 6,122 | +335 |
| Finance, service, and miscellaneous | 4,262 | 4,187 | +75 | 4,160 | +102 |
| Federal, State, and local Government: | | | | | |
| Civil employees | 3,984 | 3,935 | +49 | 3,716 | +268 |
| Military and naval forces [4] | 1,532 | 1,343 | +189 | 461 | +1,071 |

[1] Excludes military and naval forces as well as employees on W. P. A. and N. Y. A. projects, and enrollees in C. C. C. camps. Includes proprietors, firm members, self-employed persons, casual workers, and domestic servants. Includes allowance for adjustment of factory wage-earner totals to preliminary 1939 Census of Manufactures. (Revised series available on request.)

[2] Excludes all of the groups omitted from "total civil nonagricultural employment" as well as proprietors, firm members, self-employed persons, casual workers, and domestic servants.

[3] Adjusted to preliminary 1939 Census of Manufactures.

[4] Not included in totals shown above. Includes members of the National Guard inducted into the Federal service by act of Congress.

TABLE 2.—*Estimated Number of Employees in Nonagricultural Establishments, by States*

[Excludes proprietors, firm members, self-employed persons, casual workers, domestic workers, the armed forces of the United States, and employees on merchant vessels]

[Numbers in thousands]

| Geographic division and State | April 1941 (preliminary) | March 1941 | Change March to April 1941 | | April 1940 | Change April 1940 to April 1941 | |
|---|---|---|---|---|---|---|---|
| | | | Number | Percentage | | Number | Percentage |
| **New England** | **2,788** | **2,723** | **+65** | **+2.3** | **2,399** | **+389** | **+16.2** |
| Maine | 198 | 190 | +8 | +4.1 | 180 | +18 | +9.7 |
| New Hampshire | 138 | 134 | +4 | +2.8 | 121 | +17 | +14.1 |
| Vermont | 75 | 73 | +2 | +2.3 | 69 | +6 | +8.3 |
| Massachusetts | 1,454 | 1,427 | +27 | +1.8 | 1,259 | +195 | +15.5 |
| Rhode Island | 264 | 255 | +9 | +3.6 | 215 | +49 | +22.8 |
| Connecticut | 659 | 644 | +15 | +2.3 | 555 | +104 | +18.6 |
| **Middle Atlantic** | **8,026** | **7,972** | **+54** | **+.7** | **7,475** | **+551** | **+7.4** |
| New York | 4,022 | 3,951 | +71 | +1.8 | 3,787 | +235 | +6.2 |
| New Jersey | 1,250 | 1,226 | +24 | +1.9 | 1,103 | +147 | +13.3 |
| Pennsylvania | 2,754 | 2,795 | −41 | −1.5 | 2,585 | +169 | +6.5 |
| **East North Central** | **7,370** | **7,232** | **+138** | **+1.9** | **6,568** | **+802** | **+12.2** |
| Ohio | 1,931 | 1,891 | +40 | +2.1 | 1,705 | +226 | +13.2 |
| Indiana | 869 | 847 | +22 | +2.6 | 739 | +130 | +17.6 |
| Illinois | 2,373 | 2,337 | +36 | +1.6 | 2,173 | +200 | +9.2 |
| Michigan | 1,521 | 1,499 | +22 | +1.5 | 1,339 | +182 | +13.6 |
| Wisconsin | 676 | 658 | +18 | +2.7 | 612 | +64 | +10.4 |
| **West North Central** | **2,437** | **2,364** | **+73** | **+3.1** | **2,273** | **+164** | **+7.2** |
| Minnesota | 538 | 514 | +24 | +4.6 | 501 | +37 | +7.4 |
| Iowa | 407 | 398 | +9 | +2.2 | 388 | +19 | +4.9 |
| Missouri | 822 | 798 | +24 | +2.9 | 756 | +66 | +8.7 |
| North Dakota | 74 | 73 | +1 | +2.1 | 72 | +2 | +2.9 |
| South Dakota | 80 | 79 | +1 | +1.3 | 78 | +2 | +2.5 |
| Nebraska | 201 | 195 | +6 | +3.5 | 193 | +8 | +4.1 |
| Kansas | 315 | 307 | +8 | +2.6 | 285 | +30 | +10.6 |

TABLE 2.—*Estimated Number of Employees in Nonagricultural Establishments, by States*—Continued

[Excludes proprietors, firm members, self-employed persons, casual workers, domestic workers, the armed forces of the United States, and employees on merchant vessels]

[Numbers in thousands]

| Geographic division and State | April 1941 (preliminary) | March 1941 | Change March to April 1941 | | April 1940 | Change April 1940 to April 1941 | |
|---|---|---|---|---|---|---|---|
| | | | Number | Percentage | | Number | Percentage |
| **South Atlantic** | **3,788** | **3,845** | **−57** | **−1.4** | **3,386** | **+402** | **+11.9** |
| Delaware | 74 | 71 | +3 | +4.8 | 67 | +7 | +10.4 |
| Maryland | 584 | 558 | +26 | +4.5 | 486 | +98 | +20.0 |
| District of Columbia | 391 | 376 | +15 | +4.1 | 329 | +62 | +18.8 |
| Virginia | 544 | 553 | −9 | −1.7 | 477 | +67 | +14.0 |
| West Virginia | 296 | 384 | −88 | −22.8 | 361 | −65 | −17.9 |
| North Carolina | 658 | 647 | +11 | +1.7 | 569 | +89 | +15.6 |
| South Carolina | 325 | 317 | +8 | +2.5 | 274 | +51 | +18.6 |
| Georgia | 523 | 522 | +1 | +.3 | 467 | +56 | +12.1 |
| Florida | 393 | 416 | −23 | −5.4 | 356 | +37 | +10.6 |
| **East South Central** | **1,403** | **1,424** | **−21** | **−1.5** | **1,311** | **+92** | **+6.9** |
| Kentucky | 348 | 379 | −31 | −8.2 | 350 | −2 | −.7 |
| Tennessee | 476 | 471 | +5 | +1.1 | 429 | +47 | +10.8 |
| Alabama | 388 | 389 | −1 | −.3 | 353 | +35 | +10.1 |
| Mississippi | 191 | 185 | +6 | +2.8 | 179 | +12 | +6.3 |
| **West South Central** | **1,979** | **1,952** | **+27** | **+1.4** | **1,777** | **+202** | **+11.3** |
| Arkansas | 191 | 183 | +8 | +4.2 | 173 | +18 | +10.7 |
| Louisiana | 399 | 394 | +5 | +1.2 | 358 | +41 | +11.3 |
| Oklahoma | 294 | 289 | +5 | +1.9 | 283 | +11 | +3.9 |
| Texas | 1,095 | 1,086 | +9 | +.8 | 963 | +132 | +13.7 |
| **Mountain** | **773** | **763** | **+10** | **+1.2** | **738** | **+35** | **+4.6** |
| Montana | 112 | 108 | +4 | +3.7 | 107 | +5 | +4.2 |
| Idaho | 84 | 82 | +2 | +3.0 | 80 | +4 | +5.6 |
| Wyoming | 52 | 53 | −1 | −1.0 | 49 | +3 | +6.7 |
| Colorado | 219 | 218 | +1 | +.2 | 210 | +9 | +4.2 |
| New Mexico | 71 | 69 | +2 | +1.7 | 70 | +1 | +.5 |
| Arizona | 94 | 93 | +1 | +.7 | 88 | +6 | +5.7 |
| Utah | 107 | 107 | 0 | −.4 | 103 | +4 | +4.4 |
| Nevada | 34 | 33 | +1 | +3.7 | 31 | +3 | +9.2 |
| **Pacific** | **2,590** | **2,525** | **+65** | **+2.6** | **2,319** | **+271** | **+11.7** |
| Washington | 462 | 445 | +17 | +3.8 | 403 | +59 | +14.6 |
| Oregon | 252 | 244 | +8 | +3.2 | 224 | +28 | +12.4 |
| California | 1,876 | 1,836 | +40 | +2.2 | 1,692 | +184 | +10.9 |

## *Industrial and Business Employment*

Monthly reports on employment and pay rolls are available for 157 manufacturing industries; 16 nonmanufacturing industries, including private building construction; water transportation; and class I steam railroads. The reports for the first 2 of these groups—manufacturing and nonmanufacturing—are based on sample surveys by the Bureau of Labor Statistics. The figures on water transportation are based on estimates prepared by the Maritime Commission and those on class I steam railroads are compiled by the Interstate Commerce Commission. They are presented in the foregoing summary.

The indexes of factory employment and pay rolls relate to wage earners only. Those shown in table 3 are based on the 3-year average 1923–25 as 100. For all manufacturing industries combined, the durable-goods group, the nondurable-goods group, and aluminum

manufactures, they have been adjusted to preliminary 1939 census figures and for automobiles to the 1933 census. The indexes for all other groups and industries have been adjusted to 1937 census data except for the aircraft industry and the transportation equipment group, which have been adjusted on the basis of a complete employment survey of the aircraft industry made by the Bureau of Labor Statistics in August 1940. The over-all manufacturing indexes are computed from reports supplied by representative manufacturing establishments in 90 of the 157 industries surveyed. These reports cover more than 55 percent of the total wage earners in all manufacturing industries of the country and more than 65 percent of the wage earners in the 90 industries covered.

Indexes for 55 of the 67 manufacturing industries recently added to the monthly survey are shown in table 5. These indexes are based on 1939 as 100.

The indexes for the nonmanufacturing industries are based on the 12-month average for 1929 as 100. Figures for mining, laundries, and dyeing and cleaning cover wage earners only, but the figures for public utilities, trade, and hotels relate to all employees except corporation officers, executives, and other employees whose duties are mainly supervisory. For crude-petroleum production they cover wage earners and clerical field force. The coverage of the reporting samples for the various nonmanufacturing industries ranges from approximately 25 percent for wholesale and retail trade, dyeing and cleaning, and insurance, to approximately 80 percent for quarrying and nonmetallic mining, anthracite mining, and public utilities.

The indexes for retail trade have been adjusted to conform in general with the 1935 Census of Retail Distribution and are weighted by lines of trade. For the public utilities they have been adjusted to the 1937 Census of Electrical Industries, for wholesale trade to the 1933 census, and for coal mining, year-round hotels, laundries, and dyeing and cleaning to the 1935 censuses.

Data for both manufacturing and nonmanufacturing industries are based on reports of the number of employees and the amount of pay rolls for the pay period ending nearest the 15th of the month.

The average weekly earnings shown in table 3 are computed by dividing the total weekly pay rolls in the reporting establishments by the total number of full- and part-time employees reported. As not all reporting establishments supply man-hours, average hours worked per week and average hourly earnings are necessarily based on data furnished by a smaller number of reporting firms. The size and composition of the reporting sample vary slightly from month to month. Therefore, the average hours per week, average hourly earnings, and average weekly earnings shown may not be strictly

comparable from month to month. The sample, however, is believed to be sufficiently adequate in virtually all instances to indicate the general movement of earnings and hours over the period shown. The changes from the preceding month, expressed as percentages, are based on identical lists of firms for the 2 months, but the changes from April 1940 are computed from chain indexes based on the month-to-month percentage changes.

### EMPLOYMENT AND PAY-ROLL INDEXES, AVERAGE HOURS, AND AVERAGE EARNINGS

The indexes of employment and pay rolls as well as average hours worked per week, average hourly earnings, and average weekly earnings in manufacturing and nonmanufacturing industries for February, March, and April 1941, where available, are presented in table 3. The February and March figures, where given, may differ in some instances from those previously published because of revisions necessitated primarily by the inclusion of late reports. Revised figures for the plumbers' supplies industry are given in table 4 for the months from January 1940 to March 1941, inclusive. Indexes of employment and pay rolls are given in table 5 for 55 of the 67 newly added manufacturing industries for the months of February, March, and April 1941. These indexes are based on 1939 as 100 and are available in mimeographed form for the period from January 1939 to January 1941, inclusive.

In table 6 indexes of employment and pay rolls are given for all manufacturing industries combined, for the durable- and nondurable-goods groups of manufacturing industries, and for each of 13 nonmanufacturing industries, by months, from April 1940 to April 1941, inclusive. The indexes for all manufacturing industries combined, the durable-goods group, and the nondurable-goods group have been adjusted to preliminary 1939 census figures. Comparable indexes for all available months and years back to January 1919 are given in tables 9, 10, and 11 of the December 1940 issue of the Employment and Pay Rolls pamphlet. The chart on page 264 indicates the trend of factory employment and pay rolls from January 1919 to April 1941.

## TABLE 3.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries*

### MANUFACTURING

[Indexes are based on 3-year average, 1923-25=100. For "all manufacturing," "durable goods," "nondurable goods," and "aluminum manufactures," they have been adjusted to preliminary 1939 census figures. The indexes for all other manufacturing groups and industries have been adjusted to 1937 census figures, except as otherwise noted, and are not comparable to indexes published in pamphlets prior to August 1939. Comparable series available upon request]

| Industry | Employment index | | | Pay-roll index | | | Average weekly earnings [1] | | | Average hours worked per week [1] | | | Average hourly earnings [1] | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | April 1941 | March 1941 | February 1941 | April 1941 | March 1941 | February 1941 | April 1941 | March 1941 | February 1941 | April 1941 | March 1941 | February 1941 | April 1941 | March 1941 | February 1941 |
| | | | | | | | | | | | | | *Cents* | *Cents* | *Cents* |
| **All manufacturing** [2] | 122.7 | 119.9 | 117.8 | 134.8 | 131.2 | 126.8 | $29.10 | $29.10 | $28.56 | 40.0 | 40.4 | 40.0 | 70.8 | 69.7 | 69.2 |
| **Durable goods** [2] | 127.7 | 123.7 | 121.0 | 150.0 | 144.6 | 139.2 | $33.49 | $33.48 | $32.90 | 41.5 | 42.0 | 41.6 | 78.5 | 76.8 | 76.2 |
| **Nondurable goods** [2] | 117.8 | 116.3 | 114.7 | 117.8 | 116.3 | 112.9 | $23.57 | $23.63 | $23.23 | 38.4 | 38.8 | 38.3 | 62.9 | 62.4 | 62.1 |
| *Durable goods* | | | | | | | | | | | | | | | |
| **Iron and steel and their products, not including machinery** | 129.4 | 127.2 | 125.0 | 150.8 | 141.2 | 137.0 | $34.41 | $32.64 | $32.21 | 40.8 | 41.0 | 40.7 | 84.1 | 79.5 | 79.1 |
| Blast furnaces, steel works, and rolling mills | 137.4 | 135.0 | 133.3 | 164.1 | 149.0 | 145.4 | $37.87 | $34.94 | $34.51 | 39.8 | 40.1 | 40.0 | 95.4 | 87.3 | 86.6 |
| Bolts, nuts, washers, and rivets | 154.7 | 150.5 | 146.0 | 212.0 | 199.4 | 192.7 | $32.99 | $31.87 | $31.87 | 44.7 | 44.0 | 44.3 | 73.8 | 72.4 | 71.9 |
| Cast-iron pipe | 92.6 | 90.5 | 89.3 | 104.3 | 99.2 | 97.4 | $27.06 | $26.22 | $26.07 | 41.8 | 41.5 | 41.3 | 64.3 | 62.8 | 62.9 |
| Cutlery (not including silver and plated cutlery) and edge tools | 116.5 | 113.3 | 109.4 | 124.8 | 123.1 | 114.7 | $27.96 | $28.44 | $27.44 | 42.2 | 42.6 | 41.6 | 67.4 | 67.8 | 67.1 |
| Forgings, iron and steel | 99.5 | 97.4 | 94.5 | 140.5 | 137.6 | 130.2 | $38.18 | $38.23 | $37.29 | 45.4 | 45.9 | 45.2 | 84.3 | 83.4 | 82.7 |
| Hardware | 116.6 | 117.1 | 114.9 | 135.7 | 138.1 | 134.8 | $28.64 | $28.95 | $28.84 | 41.4 | 42.0 | 41.9 | 69.3 | 69.0 | 68.9 |
| Plumbers' supplies [3] | 100.8 | 100.5 | 99.1 | 98.4 | 100.5 | 96.7 | $28.18 | $28.97 | $28.15 | 39.4 | 40.4 | 39.6 | 71.6 | 71.5 | 71.1 |
| Stamped and enameled ware [4] | 210.0 | 207.4 | 201.6 | 242.5 | 240.9 | 232.6 | $27.08 | $27.04 | $26.99 | 40.4 | 40.4 | 40.4 | 66.8 | 66.7 | 66.3 |
| Steam and hot-water heating apparatus and steam fittings | 108.9 | 107.3 | 105.9 | 116.8 | 112.1 | 109.8 | $32.28 | $31.49 | $31.28 | 43.6 | 42.6 | 42.6 | 74.1 | 74.2 | 73.6 |
| Stoves | 108.4 | 103.4 | 99.2 | 108.7 | 102.8 | 94.1 | $28.28 | $28.03 | $26.79 | 40.1 | 40.2 | 39.1 | 70.8 | 69.9 | 68.8 |
| Structural and ornamental metalwork | 99.1 | 97.2 | 95.9 | 103.4 | 97.1 | 93.8 | $33.71 | $32.35 | $31.67 | 43.2 | 42.9 | 42.2 | 78.2 | 75.6 | 75.0 |
| Tin cans and other tinware | 109.0 | 107.1 | 104.1 | 127.4 | 122.3 | 117.2 | $26.11 | $25.63 | $25.31 | 41.3 | 40.4 | 39.4 | 64.3 | 63.8 | 64.7 |
| Tools (not including edge tools, machine tools, files, and saws) | 133.0 | 130.1 | 126.2 | 165.7 | 160.5 | 153.3 | $31.67 | $31.36 | $30.86 | 46.3 | 46.4 | 46.1 | 68.1 | 67.7 | 67.1 |
| Wirework | 207.4 | 209.7 | 207.8 | 242.8 | 256.4 | 252.5 | $28.62 | $29.89 | $29.71 | 40.1 | 41.7 | 41.7 | 71.6 | 72.1 | 71.3 |
| **Machinery, not including transportation equipment** | 156.5 | 147.7 | 143.5 | 198.2 | 186.2 | 176.8 | $35.06 | $35.00 | $34.26 | 44.7 | 44.9 | 44.2 | 78.8 | 77.8 | 77.2 |
| Agricultural implements (including tractors) | 175.8 | 132.6 | 144.2 | 242.4 | 162.0 | 174.2 | $37.84 | $33.54 | $33.13 | 43.7 | 41.0 | 40.6 | 87.1 | 82.0 | 81.8 |
| Cash registers, adding machines, and calcu- | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Machinery, not including transportation equipment | 156.5 | 147.7 | 143.5 | 198.2 | 186.2 | 176.8 | 35.06 | 35.00 | 34.26 | 44.7 | 44.9 | 44.2 | 78.8 | 77.8 | 77.2 |
| Agricultural implements (including tractors) | 175.8 | 132.6 | 144.2 | 242.4 | 162.0 | 174.2 | 37.84 | 33.54 | 33.13 | 43.7 | 41.0 | 40.6 | 87.1 | 82.0 | 81.8 |
| Cash registers, adding machines, and calculating machines | 151.3 | 146.3 | 140.3 | 191.0 | 179.4 | 166.3 | 39.26 | 38.25 | 36.99 | 45.3 | 44.3 | 43.4 | 87.7 | 87.3 | 86.2 |
| Electrical machinery, apparatus, and supplies | 147.3 | 141.5 | 136.4 | 192.3 | 185.9 | 175.7 | 34.41 | 34.46 | 33.87 | 44.1 | 44.3 | 43.8 | 78.2 | 78.0 | 77.6 |
| Engines, turbines, water wheels, and windmills | 255.4 | 247.1 | 236.7 | 368.2 | 376.4 | 345.7 | 37.99 | 40.14 | 38.46 | 43.1 | 46.0 | 45.1 | 88.3 | 87.4 | 85.4 |
| Foundry and machine-shop products | 130.0 | 123.6 | 120.0 | 152.5 | 143.6 | 136.1 | 34.60 | 34.39 | 33.51 | 44.8 | 44.7 | 44.0 | 77.9 | 76.9 | 76.2 |
| Machine tools | 316.9 | 307.1 | 297.2 | 472.2 | 461.9 | 447.7 | 41.10 | 41.49 | 41.62 | 51.1 | 51.9 | 51.9 | 80.8 | 79.9 | 80.1 |
| Radios and phonographs | 158.5 | 149.1 | 144.8 | 163.9 | 157.2 | 146.4 | 25.31 | 25.79 | 24.80 | 39.4 | 40.2 | 38.9 | 64.4 | 64.3 | 64.0 |
| Textile machinery and parts | 98.9 | 96.2 | 92.9 | 112.1 | 110.3 | 105.2 | 31.32 | 31.77 | 31.36 | 45.0 | 45.9 | 45.6 | 69.7 | 69.3 | 69.0 |
| Typewriters and parts | 138.3 | 133.6 | 108.5 | 174.5 | 159.2 | 122.0 | 30.93 | 29.20 | 27.58 | 43.8 | 42.3 | 40.9 | 70.6 | 69.1 | 67.4 |
| **Transportation equipment** [4] | **166.2** | **161.1** | **157.2** | **191.4** | **197.2** | **190.8** | **36.48** | **38.80** | **38.44** | **39.7** | **42.3** | **42.1** | **92.5** | **92.1** | **91.8** |
| Aircraft [5] | 5,913.6 | 5,563.7 | 5,344.0 | 7,182.5 | 6,678.3 | 6,440.6 | 35.55 | 35.02 | 35.14 | 45.4 | 45.2 | 45.5 | 79.3 | 78.3 | 78.4 |
| Automobiles [4] [6] | 132.4 | 131.5 | 130.1 | 147.3 | 163.1 | 159.6 | 36.36 | 40.61 | 40.06 | 37.0 | 41.4 | 41.2 | 98.3 | 98.2 | 97.4 |
| Cars, electric- and steam-railroad | 73.7 | 70.9 | 68.9 | 73.9 | 65.6 | 66.9 | 31.93 | 29.42 | 30.88 | 39.7 | 37.7 | 39.5 | 80.4 | 78.0 | 78.1 |
| Locomotives | 59.7 | 55.8 | 53.1 | 71.6 | 64.0 | 60.7 | 36.75 | 35.17 | 34.95 | 45.7 | 43.3 | 43.1 | 80.4 | 81.2 | 81.1 |
| Shipbuilding [7] | 294.4 | 272.4 | 256.6 | 392.5 | 365.0 | 338.1 | 39.11 | 39.30 | 38.71 | 42.7 | 44.0 | 42.8 | 90.6 | 89.0 | 90.0 |
| **Nonferrous metals and their products** | **138.8** | **136.9** | **134.7** | **157.0** | **155.1** | **151.2** | **31.49** | **31.57** | **31.00** | **42.0** | **42.1** | **41.8** | **74.9** | **74.8** | **74.0** |
| Aluminum manufactures [8] | 231.0 | 224.1 | 225.2 | 290.4 | 258.4 | 285.2 | 31.40 | 28.74 | 31.73 | 41.7 | 38.1 | 42.0 | 75.4 | 75.5 | 75.5 |
| Brass, bronze, and copper products | 182.5 | 180.5 | 175.9 | 233.6 | 236.7 | 224.2 | 35.70 | 36.45 | 35.17 | 43.8 | 44.4 | 43.6 | 81.6 | 82.2 | 80.9 |
| Clocks and watches and time-recording devices | 114.3 | 111.4 | 109.1 | 133.8 | 128.9 | 124.8 | 25.86 | 25.58 | 25.27 | 41.2 | 41.8 | 41.2 | 62.7 | 61.2 | 61.4 |
| Jewelry [4] | 104.4 | 104.2 | 102.2 | 93.7 | 94.0 | 89.5 | 24.07 | 24.14 | 23.41 | 40.3 | 40.9 | 39.8 | 59.4 | 58.9 | 58.5 |
| Lighting equipment | 113.3 | 111.9 | 111.3 | 105.8 | 105.4 | 104.8 | 28.60 | 28.83 | 28.78 | 39.8 | 40.5 | 40.4 | 71.8 | 71.1 | 71.2 |
| Silverware and plated ware | 81.6 | 79.8 | 78.4 | 82.0 | 82.4 | 77.0 | 29.04 | 29.81 | 28.35 | 43.2 | 44.3 | 42.7 | 67.8 | 68.0 | 67.0 |
| Smelting and refining—copper, lead, and zinc | 101.3 | 100.6 | 99.8 | 107.5 | 105.7 | 104.5 | 30.10 | 29.60 | 29.51 | 39.1 | 39.1 | 38.9 | 77.1 | 75.8 | 75.9 |
| **Lumber and allied products** | **73.8** | **72.6** | **72.0** | **75.7** | **72.8** | **70.6** | **22.18** | **21.68** | **21.24** | **40.2** | **39.7** | **39.4** | **54.7** | **54.1** | **53.4** |
| Furniture | 97.6 | 96.7 | 95.8 | 95.2 | 93.9 | 90.0 | 23.22 | 23.03 | 22.32 | 40.8 | 40.8 | 40.0 | 57.0 | 56.5 | 56.0 |
| Lumber: | | | | | | | | | | | | | | | |
| Millwork | 69.7 | 69.7 | 70.0 | 59.3 | 57.7 | 58.2 | 23.36 | 22.78 | 22.81 | 41.1 | 40.4 | 41.3 | 56.6 | 56.2 | 55.0 |
| Sawmills | 65.2 | 63.7 | 62.9 | 66.4 | 62.7 | 60.5 | 21.03 | 20.33 | 19.91 | 39.7 | 38.9 | 38.6 | 53.0 | 52.3 | 51.6 |
| **Stone, clay, and glass products** | **93.0** | **89.7** | **86.9** | **91.1** | **85.2** | **82.0** | **26.50** | **25.90** | **25.61** | **38.0** | **37.2** | **37.2** | **69.5** | **68.9** | **68.5** |
| Brick, tile, and terra cotta | 69.2 | 65.4 | 64.1 | 62.4 | 56.1 | 54.8 | 23.38 | 22.30 | 22.09 | 38.4 | 37.4 | 37.5 | 60.6 | 59.4 | 58.9 |
| Cement | 74.2 | 69.3 | 65.8 | 75.5 | 66.2 | 62.3 | 28.72 | 27.13 | 26.93 | 40.3 | 38.2 | 38.0 | 71.3 | 71.0 | 70.9 |
| Glass | 121.8 | 119.5 | 115.8 | 143.5 | 140.5 | 135.3 | 28.70 | 28.76 | 28.62 | 37.4 | 37.1 | 37.0 | 77.0 | 77.8 | 77.4 |
| Marble, granite, slate, and other products | 45.3 | 43.4 | 41.8 | 34.6 | 31.1 | 30.0 | 26.80 | 25.37 | 25.33 | 36.9 | 35.2 | 35.6 | 73.5 | 72.3 | 71.6 |
| Pottery | 113.1 | 111.2 | 107.8 | 110.9 | 104.4 | 99.7 | 24.88 | 23.95 | 23.38 | 37.6 | 37.3 | 37.0 | 66.6 | 64.4 | 63.6 |
| *Nondurable goods* | | | | | | | | | | | | | | | |
| **Textiles and their products** | **112.2** | **111.6** | **110.1** | **107.1** | **107.1** | **103.9** | **19.46** | **19.38** | **19.08** | **37.3** | **37.8** | **37.4** | **52.2** | **51.6** | **51.4** |
| Fabrics | 103.7 | 102.7 | 101.7 | 104.1 | 101.1 | 98.5 | 19.28 | 18.89 | 18.61 | 38.3 | 38.6 | 38.3 | 50.9 | 49.4 | 49.2 |
| Carpets and rugs | 86.9 | 85.5 | 83.9 | 81.2 | 83.1 | 79.2 | 25.86 | 26.86 | 26.10 | 37.4 | 39.0 | 38.4 | 69.2 | 68.9 | 68.1 |
| Cotton goods | 104.7 | 103.6 | 102.6 | 113.3 | 104.8 | 101.7 | 17.54 | 16.39 | 16.04 | 39.3 | 38.8 | 38.4 | 44.6 | 42.3 | 41.8 |

See footnotes at end of table.

## TABLE 3.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries*—Continued

### MANUFACTURING—Continued

[Indexes are based on 3-year average, 1923–25=100. For "all manufacturing," "durable goods," "nondurable goods," and "aluminum manufactures," they have been adjusted to preliminary 1939 census figures. The indexes for all other manufacturing groups and industries have been adjusted to 1937 census figures, except as otherwise noted, and are not comparable to indexes published in pamphlets prior to August 1939. Comparable series available upon request]

| Industry | Employment index | | | Pay-roll index | | | Average weekly earnings [1] | | | Average hours worked per week [1] | | | Average hourly earnings [1] | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | April 1941 | March 1941 | February 1941 | April 1941 | March 1941 | February 1941 | April 1941 | March 1941 | February 1941 | April 1941 | March 1941 | February 1941 | April 1941 | March 1941 | February 1941 |
| *Nondurable goods*—Continued | | | | | | | | | | | | | | | |
| **Textiles and their products**—Continued. | | | | | | | | | | | | | | | |
| Fabrics—Continued. | | | | | | | | | | | | | *Cents* | *Cents* | *Cents* |
| Cotton small wares | 100.8 | 98.2 | 95.1 | 107.4 | 104.5 | 100.6 | $20.73 | $20.87 | $20.58 | 40.2 | 41.1 | 41.1 | 51.6 | 50.8 | 50.2 |
| Dyeing and finishing textiles | 143.3 | 142.0 | 139.7 | 134.7 | 133.3 | 128.8 | 22.78 | 22.91 | 22.38 | 38.7 | 40.8 | 40.6 | 58.4 | 55.5 | 55.0 |
| Hats, fur-felt | 80.7 | 84.7 | 83.7 | 66.9 | 88.1 | 89.0 | 23.00 | 29.12 | 29.52 | 29.4 | 37.8 | 38.6 | 75.9 | 77.1 | 77.1 |
| Hosiery | 141.9 | 143.8 | 142.8 | 155.2 | 160.5 | 156.2 | 19.37 | 19.80 | 19.48 | 35.4 | 36.2 | 35.9 | 54.7 | 54.6 | 54.5 |
| Knitted outerwear | 71.4 | 68.2 | 68.4 | 63.9 | 60.8 | 59.9 | 18.53 | 18.34 | 18.14 | 37.3 | 37.4 | 36.6 | 49.2 | 49.1 | 48.9 |
| Knitted underwear | 82.6 | 80.4 | 78.3 | 84.0 | 81.7 | 76.6 | 17.03 | 17.00 | 16.41 | 37.8 | 38.3 | 37.3 | 44.8 | 44.2 | 44.2 |
| Knitted cloth | 141.5 | 145.6 | 141.9 | 132.7 | 133.0 | 128.5 | 20.89 | 20.36 | 20.16 | 40.1 | 39.6 | 39.5 | 51.8 | 51.1 | 50.5 |
| Silk and rayon goods | 68.5 | 67.2 | 66.5 | 60.1 | 57.5 | 55.9 | 18.04 | 17.55 | 17.22 | 37.6 | 37.8 | 37.3 | 47.8 | 46.2 | 46.0 |
| Woolen and worsted goods | 104.3 | 102.7 | 102.6 | 101.5 | 100.3 | 99.9 | 22.44 | 22.51 | 22.57 | 38.7 | 39.1 | 39.2 | 58.1 | 57.6 | 57.7 |
| Wearing apparel | 126.4 | 127.0 | 124.2 | 106.6 | 112.3 | 108.1 | 19.96 | 20.72 | 20.35 | 35.4 | 36.3 | 35.7 | 54.7 | 55.6 | 55.5 |
| Clothing, men's [4] | 117.9 | 115.9 | 114.3 | 98.7 | 99.6 | 96.6 | 21.40 | 21.99 | 21.52 | 35.9 | 36.6 | 36.0 | 59.8 | 59.9 | 59.7 |
| Clothing, women's | 172.6 | 177.8 | 172.6 | 132.9 | 148.0 | 142.8 | 20.62 | 22.12 | 21.92 | 34.9 | 36.3 | 35.7 | 53.6 | 56.0 | 56.4 |
| Corsets and allied garments | 118.1 | 117.8 | 114.5 | 132.5 | 133.4 | 126.8 | 18.65 | 18.87 | 18.45 | 37.5 | 38.5 | 38.1 | 49.2 | 48.7 | 48.1 |
| Men's furnishings [4] | 122.3 | 122.6 | 118.7 | 123.9 | 129.1 | 123.6 | 15.13 | 15.66 | 15.54 | 34.9 | 36.1 | 36.0 | 42.6 | 42.4 | 42.3 |
| Millinery | 87.8 | 91.0 | 88.7 | 75.5 | 84.6 | 76.1 | 26.37 | 28.50 | 26.08 | 32.6 | 34.9 | 34.1 | 69.7 | 70.0 | 67.7 |
| Shirts and collars | 130.0 | 127.5 | 125.4 | 126.3 | 121.1 | 117.2 | 15.20 | 14.87 | 14.63 | 36.4 | 36.2 | 35.6 | 42.6 | 41.7 | 41.6 |
| **Leather and its manufactures** | 98.0 | 98.7 | 96.9 | 92.3 | 96.1 | 91.5 | 21.87 | 22.61 | 21.89 | 38.0 | 39.7 | 39.1 | 57.9 | 57.2 | 56.4 |
| Boots and shoes | 95.8 | 97.0 | 95.0 | 89.1 | 94.2 | 88.9 | 20.84 | 21.77 | 20.92 | 37.7 | 39.7 | 38.9 | 55.5 | 54.9 | 54.0 |
| Leather | 90.0 | 89.1 | 88.1 | 95.1 | 94.3 | 92.3 | 26.52 | 26.47 | 26.23 | 39.2 | 39.6 | 39.6 | 67.7 | 67.0 | 66.4 |
| **Food and kindred products** | 123.9 | 120.3 | 119.1 | 125.5 | 122.5 | 119.6 | 25.57 | 25.73 | 25.25 | 39.6 | 40.0 | 39.5 | 65.5 | 65.5 | 65.1 |
| Baking | 146.5 | 145.0 | 142.9 | 140.9 | 140.0 | 137.8 | 26.59 | 26.66 | 26.73 | 41.1 | 41.6 | 41.6 | 64.7 | 64.1 | 64.4 |
| Beverages | 271.5 | 263.9 | 255.4 | 331.4 | 312.9 | 294.6 | 35.67 | 34.63 | 33.69 | 40.0 | 38.9 | 38.1 | 89.9 | 90.1 | 89.2 |
| Butter | 102.4 | 96.0 | 91.4 | 90.1 | 85.3 | 81.3 | 22.96 | 23.12 | 23.15 | 45.3 | 45.4 | 45.3 | 49.6 | 50.2 | 50.6 |
| Canning and preserving | 96.9 | 80.4 | 85.1 | 87.5 | 75.6 | 76.4 | 17.33 | 17.90 | 17.02 | 34.2 | 34.5 | 33.9 | 51.4 | 52.5 | 50.7 |
| Confectionery | 86.4 | 89.3 | 86.1 | 85.8 | 93.5 | 89.2 | 19.17 | 20.30 | 20.04 | 37.1 | 39.2 | 38.8 | 52.5 | 52.4 | 52.3 |
| Flour | 77.4 | 76.8 | 76.6 | 76.4 | 72.6 | 73.0 | 26.65 | 25.45 | 25.66 | 42.4 | 41.0 | 41.3 | 62.2 | 61.4 | 61.6 |
| Ice cream | 78.7 | 70.8 | 68.2 | 69.5 | 62.5 | 59.9 | 30.50 | 30.21 | 30.00 | 45.8 | 45.2 | 44.6 | 64.1 | 65.2 | 65.4 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flour | 77.4 | 76.8 | 76.6 | 76.4 | 72.6 | 73.0 | 26.65 | 25.45 | 25.66 | 42.4 | 41.0 | 41.3 | 62.2 | 61.4 | 61.6 |
| Ice cream | 78.7 | 70.8 | 68.2 | 69.5 | 62.5 | 59.9 | 30.50 | 30.21 | 30.00 | 45.8 | 45.2 | 44.6 | 64.1 | 65.2 | 65.4 |
| Slaughtering and meat packing | 111.3 | 110.7 | 110.6 | 116.1 | 114.2 | 113.5 | 27.21 | 26.81 | 26.70 | 39.1 | 39.2 | 39.0 | 69.6 | 68.5 | 68.5 |
| Sugar, beet | 43.5 | 43.2 | 53.4 | 48.1 | 46.0 | 57.1 | 28.78 | 27.56 | 27.69 | 37.9 | 34.6 | 38.1 | 78.8 | 81.9 | 76.1 |
| Sugar refining, cane | 102.6 | 95.7 | 88.6 | 92.5 | 92.3 | 73.0 | 25.53 | 27.32 | 23.33 | 39.1 | 41.5 | 35.5 | 65.2 | 65.8 | 65.6 |
| **Tobacco manufactures** | **63.5** | **63.3** | **63.7** | **59.1** | **62.7** | **61.7** | **17.08** | **17.99** | **17.54** | **33.2** | **36.1** | **35.4** | **50.6** | **49.7** | **49.5** |
| Chewing and smoking tobacco and snuff | 53.5 | 54.2 | 56.5 | 61.6 | 64.2 | 63.5 | 18.50 | 19.10 | 18.12 | 33.7 | 35.3 | 33.7 | 54.9 | 54.3 | 53.9 |
| Cigars and cigarettes | 64.7 | 64.4 | 64.6 | 58.7 | 62.4 | 61.3 | 16.80 | 17.78 | 17.42 | 33.2 | 36.1 | 35.6 | 50.2 | 49.2 | 49.0 |
| **Paper and printing** | **119.4** | **118.1** | **117.1** | **121.3** | **120.3** | **117.1** | **30.51** | **30.67** | **30.04** | **39.6** | **39.7** | **39.1** | **80.5** | **80.7** | **80.3** |
| Boxes, paper | 126.6 | 123.0 | 118.8 | 150.7 | 145.0 | 136.2 | 23.74 | 23.54 | 22.87 | 40.9 | 40.8 | 39.8 | 58.5 | 58.2 | 57.9 |
| Paper and pulp | 120.3 | 118.5 | 117.3 | 139.1 | 136.4 | 132.5 | 28.31 | 28.19 | 27.66 | 42.6 | 42.5 | 41.9 | 66.6 | 66.4 | 66.1 |
| Printing and publishing: | | | | | | | | | | | | | | | |
| Book and job [4] | 102.8 | 102.1 | 102.8 | 93.7 | 94.9 | 93.2 | 31.54 | 32.08 | 31.28 | 39.4 | 39.8 | 39.2 | 81.4 | 81.7 | 81.0 |
| Newspapers and periodicals [4] | 117.1 | 116.9 | 115.9 | 112.5 | 112.1 | 109.7 | 39.09 | 39.02 | 38.54 | 35.9 | 36.0 | 35.5 | 105.1 | 105.5 | 105.7 |
| **Chemicals, petroleum, and coal products** | **134.5** | **130.7** | **127.8** | **156.6** | **148.2** | **144.2** | **30.95** | **30.38** | **30.24** | **39.9** | **39.1** | **38.8** | **77.3** | **76.6** | **77.0** |
| Petroleum refining | 120.5 | 119.5 | 119.2 | 142.4 | 133.4 | 132.1 | 36.64 | 34.68 | 34.36 | 37.0 | 36.0 | 35.6 | 99.5 | 96.7 | 97.0 |
| Other than petroleum refining | 137.8 | 133.4 | 129.9 | 161.0 | 152.7 | 148.0 | 29.07 | 28.86 | 28.71 | 40.7 | 40.1 | 39.8 | 70.7 | 70.5 | 70.7 |
| Chemicals | 162.4 | 159.3 | 155.1 | 208.3 | 201.7 | 193.9 | 34.24 | 33.93 | 33.50 | 40.8 | 41.0 | 40.6 | 83.9 | 82.9 | 82.6 |
| Cottonseed—oil, cake, and meal | 88.4 | 99.4 | 112.0 | 83.3 | 93.6 | 104.9 | 15.17 | 15.15 | 15.02 | 42.9 | 42.5 | 43.4 | 34.4 | 34.6 | 34.0 |
| Druggists' preparations | 122.4 | 120.9 | 119.3 | 137.7 | 137.7 | 136.4 | 25.12 | 25.62 | 25.72 | 39.4 | 39.9 | 39.9 | 61.1 | 61.6 | 61.9 |
| Explosives | (18) | (18) | (18) | (18) | (18) | (18) | 35.66 | 35.14 | 35.96 | 41.0 | 40.5 | 41.0 | 87.1 | 86.8 | 87.6 |
| Fertilizers | 178.7 | 140.9 | 113.2 | 176.9 | 116.9 | 92.8 | 17.48 | 14.88 | 14.69 | 41.9 | 36.5 | 34.9 | 41.7 | 40.8 | 42.1 |
| Paints and varnishes | 137.4 | 132.9 | 128.6 | 157.9 | 147.4 | 141.7 | 31.57 | 30.46 | 30.22 | 41.9 | 40.8 | 40.6 | 75.5 | 74.9 | 74.6 |
| Rayon and allied products | 317.9 | 312.2 | 311.0 | 342.3 | 332.9 | 327.6 | 27.54 | 27.28 | 26.94 | 39.0 | 38.9 | 38.4 | 70.6 | 70.0 | 70.2 |
| Soap | 91.6 | 90.7 | 89.8 | 115.6 | 114.8 | 112.6 | 29.76 | 29.84 | 29.54 | 40.4 | 40.5 | 40.3 | 73.7 | 73.6 | 73.4 |
| **Rubber products** | **105.1** | **102.8** | **100.7** | **122.5** | **119.5** | **115.3** | **31.77** | **31.67** | **31.20** | **39.4** | **39.7** | **39.3** | **80.4** | **79.9** | **79.2** |
| Rubber boots and shoes | 72.4 | 68.9 | 68.0 | 83.6 | 80.4 | 78.9 | 26.54 | 26.83 | 26.66 | 41.2 | 41.7 | 41.3 | 64.8 | 64.3 | 64.5 |
| Rubber tires and inner tubes | 82.7 | 80.0 | 78.6 | 106.7 | 102.7 | 99.7 | 37.73 | 37.55 | 37.02 | 37.9 | 37.9 | 37.8 | 99.3 | 99.4 | 98.1 |
| Rubber goods other | 180.3 | 179.2 | 174.9 | 194.8 | 194.6 | 185.2 | 26.12 | 26.31 | 25.72 | 40.4 | 41.0 | 40.3 | 65.4 | 64.7 | 64.3 |

## NONMANUFACTURING

[Indexes are based on 12-month average, 1929=100]

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Coal mining: | | | | | | | | | | | | | | | |
| Anthracite [9 10] | 48.7 | 50.2 | 50.6 | 24.3 | 42.4 | 45.2 | 16.43 | 27.79 | 29.35 | 18.5 | 29.9 | 31.4 | 92.3 | 92.7 | 92.6 |
| Bituminous [9] | 21.1 | 91.1 | 90.6 | 15.5 | 93.8 | 90.8 | 19.59 | 27.64 | 26.90 | 24.2 | 31.6 | 30.9 | 84.9 | 88.3 | 88.4 |
| Metalliferous mining [11] | 76.6 | 74.3 | 73.4 | 76.9 | 72.7 | 71.8 | 31.66 | 30.85 | 30.83 | 41.0 | 41.0 | 41.0 | 77.6 | 75.4 | 75.6 |
| Quarrying and nonmetallic mining | 48.1 | 44.2 | 42.4 | 47.0 | 40.3 | 38.2 | 24.46 | 22.85 | 22.64 | 40.9 | 38.9 | 38.9 | 59.8 | 58.9 | 58.2 |
| Crude-petroleum production* | 60.7 | 60.2 | 60.4 | 57.1 | 56.1 | 57.3 | 34.59 | 34.25 | 34.91 | 37.7 | 37.3 | 37.4 | 88.8 | 89.3 | 90.4 |

See footnotes at end of table.

## TABLE 3.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries*—Continued

### NONMANUFACTURING—Continued

[Indexes are based on 3-year average, 1923–25=100. For "all manufacturing," "durable goods," "nondurable goods," and "aluminum manufactures," they have been adjusted to preliminary 1939 census figures. The indexes for all other manufacturing groups and industries have been adjusted to 1937 census figures, except as otherwise noted, and are not comparable to indexes published in pamphlets prior to August 1939. Comparable series available upon request]

| Industry | Employment index | | | Pay-roll index | | | Average weekly earnings [1] | | | Average hours worked per week [1] | | | Average hourly earnings [1] | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | April 1941 | March 1941 | February 1941 | April 1941 | March 1941 | February 1941 | April 1941 | March 1941 | February 1941 | April 1941 | March 1941 | February 1941 | April 1941 | March 1941 | February 1941 |
| Public utilities: | | | | | | | | | | | | | *Cents* | *Cents* | *Cents* |
| Telephone and telegraph [12 13] | 83.0 | 81.8 | 80.9 | 108.1 | 106.4 | 104.3 | $31.97 | $31.93 | $31.64 | 40.4 | 39.8 | 39.5 | 79.5 | 80.6 | 80.5 |
| Electric light and power [12 13] | 91.9 | 90.3 | 90.1 | 107.8 | 106.1 | 105.4 | 35.75 | 35.82 | 35.57 | 39.7 | 39.3 | 39.2 | 90.3 | 91.4 | 90.8 |
| Street railways and busses [12 13 14] | 68.2 | 68.2 | 68.0 | 71.8 | 72.5 | 71.0 | 34.27 | 34.59 | 34.00 | 46.3 | 46.6 | 45.8 | 73.0 | 73.2 | 73.4 |
| Trade: | | | | | | | | | | | | | | | |
| Wholesale [12 15] | 92.3 | 91.8 | 91.4 | 83.0 | 82.0 | 81.4 | 31.37 | 31.17 | 30.96 | 40.9 | 40.6 | 40.5 | 77.2 | 77.2 | 76.6 |
| Retail [12 13] | 97.7 | 92.5 | 90.7 | 91.3 | 86.2 | 84.6 | 21.55 | 21.59 | 21.73 | 42.5 | 42.7 | 42.7 | 55.1 | 54.8 | 54.9 |
| Food [13] | 107.3 | 106.1 | 105.6 | 100.6 | 99.1 | 98.3 | 23.90 | 23.83 | 23.76 | 43.0 | 43.1 | 43.0 | 53.3 | 52.9 | 52.7 |
| General merchandising [13 15] | 109.4 | 96.6 | 92.9 | 98.5 | 88.3 | 86.6 | 18.09 | 18.18 | 18.52 | 38.7 | 38.5 | 38.9 | 45.9 | 46.6 | 46.7 |
| Apparel [13] | 99.1 | 83.0 | 77.9 | 91.8 | 76.5 | 73.6 | 21.64 | 21.50 | 21.83 | 38.0 | 38.0 | 38.5 | 56.4 | 55.7 | 56.0 |
| Furniture [13] | 76.8 | 74.2 | 75.0 | 72.1 | 66.3 | 66.3 | 29.58 | 28.36 | 28.12 | 44.6 | 44.1 | 43.9 | 69.5 | 67.0 | 67.9 |
| Automotive [13] | 90.4 | 87.9 | 86.7 | 95.2 | 87.9 | 84.3 | 31.63 | 29.96 | 29.31 | 47.3 | 47.1 | 46.7 | 66.9 | 64.3 | 62.9 |
| Lumber [13] | 75.0 | 72.5 | 71.6 | 72.6 | 69.2 | 68.1 | 27.17 | 26.72 | 26.59 | 42.5 | 42.0 | 42.0 | 65.3 | 64.8 | 64.5 |
| Hotels (year-round) [9 12 16] | 95.1 | 94.2 | 93.9 | 86.7 | 85.7 | 86.1 | 15.70 | 15.67 | 15.81 | 45.7 | 46.0 | 45.7 | 33.9 | 33.7 | 34.1 |
| Laundries [9] | 105.5 | 102.5 | 101.1 | 95.5 | 90.9 | 89.7 | 18.75 | 18.37 | 18.41 | 43.4 | 43.3 | 43.2 | 43.2 | 42.6 | 42.7 |
| Dyeing and cleaning [9] | 117.4 | 104.4 | 101.4 | 98.1 | 77.2 | 74.4 | 23.00 | 20.34 | 20.13 | 45.5 | 42.4 | 42.1 | 51.6 | 49.4 | 49.0 |
| Brokerage [12 17] | −.9 | −1.6 | −1.6 | +.7 | −1.4 | −2.7 | 38.46 | 37.85 | 37.82 | (18) | (18) | (18) | (18) | (18) | (18) |
| Insurance [12 17] | +.3 | +.2 | +.2 | −.4 | +.6 | −.3 | 36.98 | 37.24 | 37.26 | (18) | (18) | (18) | (18) | (18) | (18) |
| Building construction [17] | +11.1 | +.2 | −2.0 | +15.5 | +.5 | −.4 | 33.96 | 32.61 | 32.67 | 34.4 | 32.8 | 32.8 | 98.9 | 100.0 | 99.7 |

[1] Mimeographed sheets giving averages by years, 1932 to 1939, inclusive, and by months, January 1938 to August 1940, inclusive, available on request. Average hours and average

[7] Because of expansion in the reporting sample, hours and earnings are not comparable with those previously published as indicated:

[1] Mimeographed sheets giving averages by years, 1932 to 1939, inclusive, and by months, January 1938 to August 1940, inclusive, available on request. Average hours and average hourly earnings are computed from data supplied by a smaller number of establishments than average weekly earnings, as not all reporting firms furnish man-hours. The figures are not strictly comparable from month to month because of changes in the size and composition of the reporting sample.

[2] See tables 9, 10, and 11 in the December 1940 issue of Employment and Pay Rolls for comparable series back to January 1919 for all manufacturing and back to January 1923 for the durable- and nondurable-goods groups.

[3] Not comparable with previously published figures. See table 7 for revised figures from January 1940 to March 1941.

[4] Revisions in the following industries have been made as indicated:

*Stamped ware.*—January 1941 average weekly earnings, average weekly hours, average hourly earnings to $26.32, 39.4 hours, 66.5 cents; January employment and pay-roll indexes to 190.6 and 214.4.

*Automobiles.*—August, October, November, December 1940 and January 1941 average weekly earnings to $37.06, $39.25, $38.05, $36.49, $37.66; August, November and December average weekly hours to 38.8, 39.8, 38.2; August, October, November, December, and January average hourly earnings to 95.6, 95.1, 95.7, 95.4, 96.9; August, September, November, December, and January employment indexes to 85.5, 112.2, 129.8, 130.2, 128.5; September, October, December, and January pay-roll indexes to 125.1, 149.2, 145.0, 147.7.

*Jewelry.*—January average weekly earnings, average weekly hours, average hourly earnings to $22.78, 38.4, 58.6.

*Men's clothing.*—January average weekly earnings, average weekly hours, average hourly earnings to $20.40, 33.4, 60.7, January employment and pay-roll indexes to 109.2, 87.2.

*Men's furnishings.*—October average hourly earnings to 42.3 cents.

*Printing—Book and job.*—January average weekly earnings, average hourly earnings to $31.64, 81.0 cents.

*Printing—Newspapers.*—January average weekly earnings, average weekly hours, average hourly earnings to $38.15, 35.4, 105.2; January employment index to 115.2.

[5] Adjusted on basis of a complete employment survey of the aircraft industry made by the Bureau of Labor Statistics for August 1940. Not comparable with previously published indexes from January 1939 to August 1940, inclusive. Comparable figures for this period given in table 9 of the September 1940 issue of Employment and Pay Rolls.

[6] The indexes for "Automobiles" have been adjusted to 1933 census figures, but not to later census figures because of problems involving integrated industries.

[7] Because of expansion in the reporting sample, hours and earnings are not comparable with those previously published as indicated:

*Shipbuilding.*—Average weekly earnings, average weekly hours, average hourly earnings (comparable October, November, December, and January figures $36.57, $34.46, $38.37, $37.69; 41.0, 38.5, 42.6, 42.0 hours; 87.1, 88.4, 89.5, 89.3 cents). November and January employment indexes revised to 204.1 and 240.3; November and December pay-roll indexes to 237.8, 287.7.

[8] See table 8 in March 1941 Employment and Pay Rolls pamphlet for revised figures from January 1935 to February 1941.

[9] Indexes adjusted to 1935 census. Comparable series back to January 1929 presented in January 1938 issue of the pamphlet.

[10] See table 7 of October 1940 Employment and Pay Rolls for revised employment and pay-roll indexes, average hours worked per week, average hourly earnings, and average weekly earnings in anthracite mining, February 1940 to September 1940, inclusive.

[11] See table 7 of February 1941 Employment and Pay Rolls for revised figures for metalliferous mining from January 1938 to January 1941, inclusive.

[12] Average weekly earnings, hourly earnings, and hours not comparable with figures published in Employment and Pay Rolls prior to January 1938 as they now exclude corporation officers, executives, and other employees whose duties are mainly supervisory.

[13] Retail-trade indexes adjusted to 1935 census and public-utility indexes to 1937 census. Not comparable to indexes published in Employment and Pay Rolls pamphlets prior to January 1940 or in Monthly Labor Review prior to April 1940, with but one exception, retail furniture, which has been revised since publication of July 1940 pamphlet back to January 1936. Comparable series for earlier months available upon request.

[14] Covers street-railways and trolley and motorbus operations of subsidiary, affiliated, and successor companies; formerly "electric-railroad and motorbus operation and maintenance."

[15] Indexes adjusted to 1933 census. Comparable series in November 1934 and subsequent issues of Employment and Pay Rolls.

[16] Cash payments only; additional value of board, room, and tips not included.

[17] Indexes of employment and pay rolls are not available; percentage changes from preceding month substituted.

[18] Not available.

*January figures revised as follows: Employment index to 60.3, pay-roll index to 55.7, average weekly earnings to $33.99, average weekly hours to 37.7, average hourly earnings to 88.5 cents.

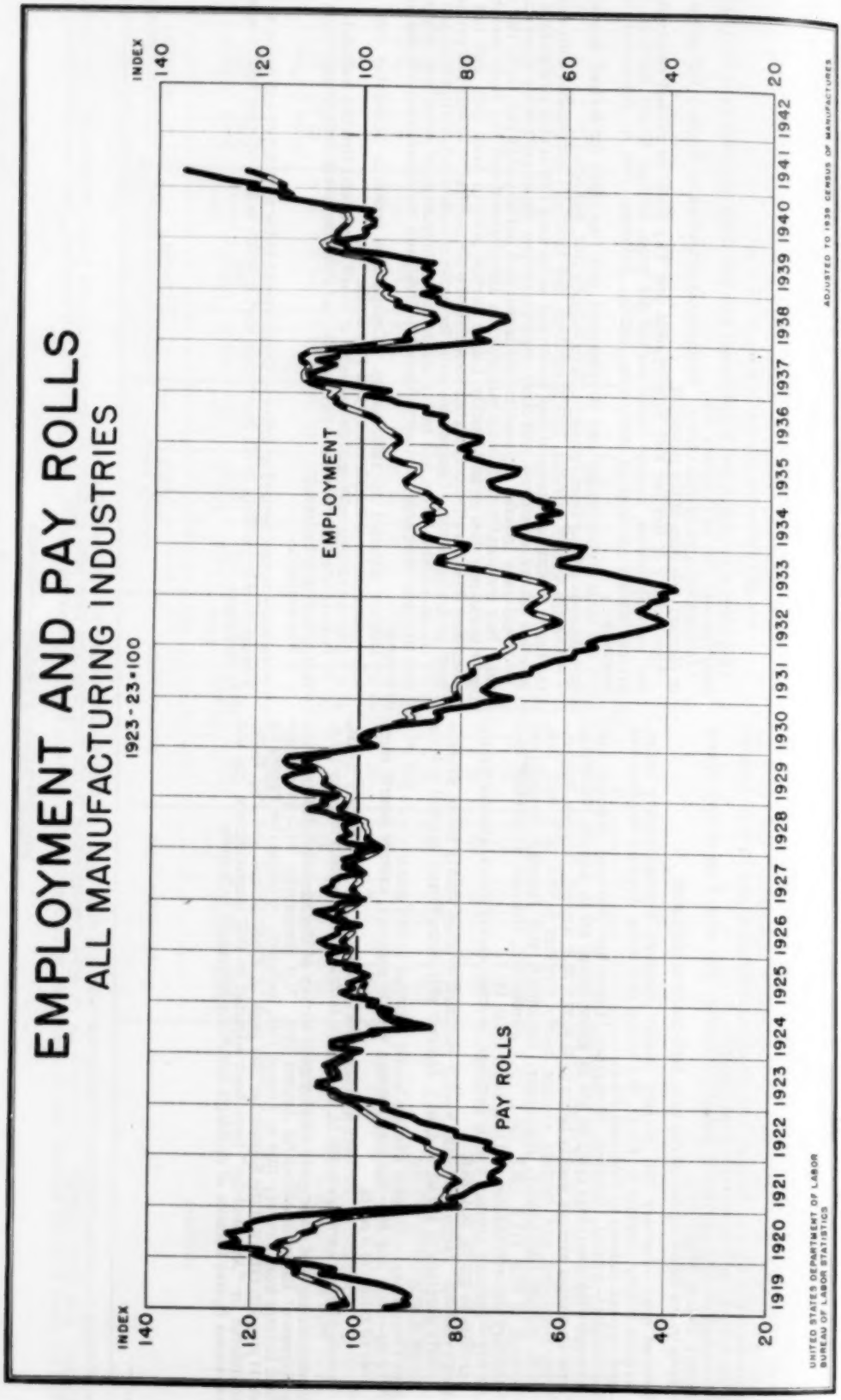
EMPLOYMENT AND PAY ROLLS
ALL MANUFACTURING INDUSTRIES
1923-23-100
INDEX
140
120
100
80
60
40
20
EMPLOYMENT
PAY ROLLS
1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940 1941 1942
ADJUSTED TO 1939 CENSUS OF MANUFACTURES
UNITED STATES DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS

TABLE 4.—*Revised Employment, Pay Rolls, Hours, and Earnings in the Plumbers' Supplies Industry, January 1940 to March 1941, Inclusive*

| Year and month | Employment index | Pay-roll index | Average weekly earnings | Average hours worked per week | Average hourly earnings |
|---|---|---|---|---|---|
| | | | | | *Cents* |
| *1940* | | | | | |
| January | [1] 82.2 | 72.5 | $25.63 | 38.1 | 67.3 |
| February | [1] 81.9 | 72.5 | 25.78 | 37.8 | 68.2 |
| March | [1] 81.8 | 72.6 | 25.82 | 37.7 | 68.4 |
| April | [1] 81.8 | 74.1 | 26.42 | 38.3 | 69.2 |
| May | [1] 81.8 | 74.5 | 26.59 | 38.4 | 69.2 |
| June | [1] 82.9 | 74.9 | 26.35 | 38.2 | 69.1 |
| July | 84.4 | 76.1 | 26.28 | 37.9 | 69.4 |
| August | 86.8 | 81.7 | 27.42 | 39.6 | 69.3 |
| September | 88.6 | 82.8 | [2] 26.93 | 39.1 | [2] 68.9 |
| October | 91.1 | 87.3 | 27.66 | 40.1 | 69.0 |
| November | 94.3 | 90.4 | 27.66 | 39.7 | 69.7 |
| December | 96.6 | 95.1 | 28.42 | 40.5 | 70.2 |
| *1941* | | | | | |
| January | 97.7 | 91.8 | 27.13 | 39.0 | 69.6 |
| February | 99.1 | 96.7 | 28.15 | 39.6 | 71.1 |
| March | 100.5 | 100.5 | 28.97 | 40.4 | 71.5 |

[1] Not revised—same as previously published.
[2] Not comparable with figures for earlier months because of expansion of reporting sample (comparable August weekly earnings and hourly earnings $27.13 and 68.6 cents).

TABLE 5.—*Indexes of Employment and Pay Rolls in 55 "Additional" Manufacturing Industries*

[12-month average 1939=100]

| Industry | Employment | | | Pay rolls | | |
|---|---|---|---|---|---|---|
| | April 1941 | March 1941 | February 1941 | April 1941 | March 1941 | February 1941 |
| Iron and steel group: | | | | | | |
| Metal doors and shutters | 126.9 | 125.7 | 121.5 | 135.9 | 136.7 | 131.5 |
| Firearms | (1) | (1) | (1) | (1) | (1) | (1) |
| Screw-machine products | 178.3 | 173.3 | 167.6 | 224.4 | 222.7 | 214.4 |
| Wire not made in rolling mills | 136.7 | 133.3 | 130.9 | 158.4 | 154.8 | 147.8 |
| Wrought pipe not made in rolling mills | 155.7 | 144.9 | 141.8 | 175.7 | 167.9 | 161.0 |
| Steel barrels, kegs, and drums | 117.4 | 108.1 | 111.7 | 147.5 | 126.7 | 127.7 |
| Machinery group: | | | | | | |
| Machine-tool accessories | 200.5 | 190.5 | 180.2 | 251.7 | 235.0 | 219.4 |
| Pumps | 165.5 | 158.0 | 147.5 | 218.6 | 203.9 | 186.0 |
| Refrigerators and refrigerating apparatus | 154.9 | 150.9 | 141.1 | 184.6 | 177.5 | 160.6 |
| Sewing machines | 122.3 | 117.8 | 113.7 | 165.4 | 149.0 | 138.5 |
| Washing machines, wringers, and driers | 130.8 | 125.4 | 118.0 | 162.6 | 145.2 | 136.6 |
| Transportation equipment group: | | | | | | |
| Motorcycles, bicyles, and parts | 147.3 | 133.5 | 123.9 | 168.3 | 144.6 | 130.9 |
| Nonferrous metals group: | | | | | | |
| Sheet-metal work | 142.2 | 140.1 | 137.6 | 161.2 | 155.3 | 151.5 |
| Smelting and refining of scrap metal | 140.5 | 135.4 | 132.0 | 167.9 | 162.5 | 146.8 |
| Lumber group: | | | | | | |
| Caskets and morticians' goods | 100.9 | 101.8 | 101.9 | 107.8 | 109.7 | 111.4 |
| Wood preserving | 121.0 | 117.2 | 113.3 | 142.7 | 137.6 | 128.2 |
| Wood turned and shaped | 117.2 | 116.3 | 114.0 | 130.9 | 130.7 | 127.1 |
| Wooden boxes, other than cigar | 118.3 | 115.9 | 115.7 | 137.7 | 129.7 | 124.1 |
| Mattresses and bedsprings | 116.2 | 114.5 | 110.9 | 127.7 | 125.7 | 119.1 |
| Stone, clay, and glass products group: | | | | | | |
| Abrasive wheels | 172.4 | 164.3 | 156.5 | 203.6 | 182.7 | 171.7 |
| Asbestos products | 121.3 | 115.8 | 109.8 | 139.0 | 138.2 | 129.6 |
| Lime | 120.5 | 111.9 | 109.1 | 141.0 | 120.8 | 117.0 |
| Gypsum | 111.9 | 109.2 | 108.0 | 126.3 | 112.8 | 114.3 |
| Glass products made from purchased glass | 132.6 | 130.2 | 133.8 | 142.7 | 142.4 | 135.7 |
| Wallboard and plaster, except gypsum | 122.8 | 122.2 | 120.9 | 137.1 | 136.5 | 131.6 |
| Textiles: | | | | | | |
| Textile bags | 111.3 | 104.8 | 102.8 | 120.3 | 115.8 | 111.0 |
| Cordage and twine | 124.6 | 120.4 | 117.9 | 148.1 | 138.3 | 130.3 |
| House furnishings: | | | | | | |
| Curtains, draperies, and bedspreads | 101.7 | 104.5 | 102.7 | 123.5 | 125.1 | 118.9 |
| Other | 136.0 | 129.6 | 123.3 | 141.3 | 143.4 | 136.1 |
| Jute goods, except felt | 121.5 | 113.5 | 106.4 | 150.7 | 136.5 | 121.4 |
| Handkerchiefs | 101.1 | 100.3 | 97.4 | 112.8 | 117.1 | 108.4 |

[1] Not available.

TABLE 5.—*Indexes of Employment and Pay Rolls in 55 "Additional" Manufacturing Industries*—Continued

[12-month average 1939=100]

| Industry | Employment | | | Pay rolls | | |
|---|---|---|---|---|---|---|
| | April 1941 | March 1941 | February 1941 | April 1941 | March 1941 | February 1941 |
| Leather group: | | | | | | |
| Boot and shoe cut stock and findings | 103.3 | 104.8 | 103.5 | 111.9 | 117.5 | 114.0 |
| Leather gloves and mittens | 135.7 | 130.1 | 125.3 | 169.4 | 156.6 | 146.4 |
| Trunks and suitcases | 136.4 | 131.7 | 137.1 | 131.6 | 131.1 | 136.0 |
| Food group: | | | | | | |
| Cereal preparations | 102.2 | 100.2 | 95.1 | 114.3 | 107.6 | 99.5 |
| Condensed and evaporated milk | 109.6 | 102.6 | 99.9 | 117.7 | 107.9 | 104.5 |
| Feeds, prepared | 105.4 | 101.3 | 100.9 | 113.5 | 104.6 | 102.8 |
| Paper and printing group: | | | | | | |
| Paper bags | 115.0 | 105.5 | 103.5 | 129.9 | 117.6 | 114.3 |
| Envelopes | 112.0 | 111.0 | 107.5 | 118.5 | 116.7 | 113.0 |
| Paper goods, not elsewhere classified | 117.7 | 115.5 | 112.9 | 124.7 | 123.8 | 118.2 |
| Bookbinding | 105.9 | 105.7 | 104.3 | 121.5 | 121.8 | 117.5 |
| Lithographing | 98.7 | 96.6 | 96.4 | 170.4 | 106.1 | 98.4 |
| Chemical, petroleum, and coal products group: | | | | | | |
| Ammunition | (1) | (1) | (1) | (1) | (1) | (1) |
| Compressed and liquefied gases | 135.7 | 133.1 | 128.0 | 160.9 | 162.9 | 143.9 |
| Perfumes and cosmetics | 92.7 | 90.3 | 90.2 | 94.3 | 91.0 | 89.0 |
| Coke-oven products | 115.8 | 118.5 | 119.0 | 125.6 | 123.2 | 122.1 |
| Paving materials | 97.2 | 86.4 | 83.8 | 102.2 | 93.7 | 87.8 |
| Roofing materials | 121.5 | 115.9 | 105.9 | 136.0 | 126.1 | 112.1 |
| Miscellaneous group: | | | | | | |
| Chemical fire extinguishers | 224.4 | 218.4 | 210.6 | 271.0 | 279.9 | 263.7 |
| Buttons | 111.9 | 111.5 | 111.2 | 129.6 | 127.8 | 125.5 |
| Instruments—professional, scientific, and commercial | 169.2 | 161.0 | 152.7 | 203.7 | 192.9 | 180.5 |
| Optical goods | 155.9 | 149.8 | 143.9 | 174.8 | 165.2 | 154.8 |
| Photographic apparatus | 113.6 | 110.6 | 109.0 | 128.9 | 120.8 | 115.8 |
| Pianos, organs, and parts | 123.1 | 121.5 | 122.0 | 129.3 | 127.0 | 125.7 |
| Toys, games, and playground equipment | 106.6 | 111.4 | 102.6 | 108.5 | 117.0 | 104.2 |

[1] Not availabe.

TABLE 6.—*Indexes of Employment and Pay Rolls in Selected Manufacturing [1] and Nonmanufacturing [2] Industries, April 1940 to April 1941*

| Industry | 1940 | | | | | | | | | | 1941 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Av. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |
| *Manufacturing* | Employment | | | | | | | | | | | | | |
| All industries | 107.5 | 103.2 | 102.5 | 103.1 | 103.2 | 107.4 | 111.4 | 113.8 | 114.7 | 116.2 | 115.5 | 117.8 | 119.9 | 122.7 |
| Durable goods [3] | 104.3 | 98.7 | 99.2 | 99.8 | 98.4 | 102.4 | 108.2 | 112.8 | 115.5 | 117.7 | 118.3 | 121.0 | 123.7 | 127.7 |
| Nondurable goods [4] | 110.6 | 107.5 | 105.6 | 106.2 | 107.8 | 112.2 | 114.4 | 114.8 | 113.8 | 114.8 | 112.7 | 114.7 | 116.3 | 117.8 |
| *Nonmanufacturing* | | | | | | | | | | | | | | |
| Anthracite mining [5] | 50.7 | 51.2 | 51.8 | 49.7 | 50.5 | 49.9 | 49.8 | 49.4 | 50.4 | 50.8 | 50.3 | 50.6 | 50.2 | 48.7 |
| Bituminous-coal mining [5] | 88.0 | 86.2 | 85.1 | 83.8 | 84.9 | 86.6 | 87.7 | 89.2 | 89.8 | 90.1 | 90.2 | 90.6 | 91.1 | 21.1 |
| Metalliferous mining [6] | 69.9 | 67.7 | 69.2 | 70.3 | 71.0 | 71.5 | 72.5 | 72.6 | 72.5 | 72.2 | 72.5 | 73.4 | 74.3 | 76.6 |
| Quarrying and nonmetallic mining | 45.3 | 44.5 | 46.9 | 47.9 | 48.1 | 48.5 | 48.9 | 48.8 | 47.2 | 45.4 | 41.7 | 42.4 | 44.2 | 48.1 |
| Crude-petroleum production | 62.9 | 63.1 | 63.3 | 63.8 | 63.7 | 63.6 | 63.0 | 62.4 | 61.3 | 60.7 | 60.3 | 60.4 | 60.2 | 60.7 |
| Telephone and telegraph [7] | 77.9 | 76.7 | 77.3 | 77.8 | 78.8 | 79.0 | 78.9 | 79.1 | 79.2 | 79.7 | 80.4 | 80.9 | 81.8 | 83.0 |
| Electric light and power [7] | 91.1 | 90.0 | 90.6 | 91.2 | 92.2 | 93.0 | 92.7 | 92.3 | 91.8 | 91.3 | 90.5 | 90.1 | 90.3 | 91.9 |
| Street railways and busses [7 8] | 68.5 | 68.3 | 68.4 | 68.5 | 68.4 | 68.4 | 68.5 | 68.7 | 68.7 | 68.4 | 68.3 | 68.0 | 68.2 | 68.2 |
| Wholesale trade [7] | 90.4 | 89.3 | 88.9 | 89.6 | 89.2 | 90.1 | 90.9 | 91.0 | 91.8 | 92.5 | 91.2 | 91.4 | 91.8 | 92.3 |
| Retail trade | 92.3 | 89.8 | 91.2 | 91.9 | 89.1 | 88.7 | 92.8 | 94.3 | 96.3 | 108.1 | 90.5 | 90.7 | 92.5 | 97.7 |
| Year-round hotels [5] | 92.0 | 92.7 | 93.4 | 92.0 | 90.3 | 90.3 | 91.6 | 93.4 | 92.3 | 92.6 | 92.9 | 93.9 | 94.2 | 95.1 |
| Laundries [5] | 99.5 | 97.2 | 99.1 | 102.1 | 102.5 | 102.8 | 101.9 | 100.2 | 99.7 | 100.3 | 101.4 | 101.1 | 102.5 | 105.5 |
| Dyeing and cleaning [5] | 104.7 | 104.5 | 108.7 | 112.6 | 108.2 | 106.7 | 110.0 | 109.4 | 106.0 | 103.3 | 101.0 | 101.4 | 104.4 | 117.4 |

See footnotes at end of table.

TABLE 6.—*Indexes of Employment and Pay Rolls in Selected Manufacturing and Nonmaufacturing Industries, April 1940 to April 1941*—Continued

| Industry | 1940 | | | | | | | | | | 1941 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Av. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. |
| | Pay rolls | | | | | | | | | | | | | |
| *Manufacturing* | | | | | | | | | | | | | | |
| All industries | 105.4 | 97.9 | 97.8 | 99.5 | 98.2 | 105.5 | 111.6 | 116.2 | 116.4 | 122.4 | 120.7 | 126.8 | 131.2 | 134.8 |
| Durable goods [3] | 107.8 | 98.4 | 98.7 | 101.4 | 97.4 | 106.5 | 115.1 | 123.4 | 125.1 | 131.7 | 132.0 | 139.2 | 144.6 | 150.0 |
| Nondurable goods [4] | 102.7 | 97.3 | 96.8 | 97.4 | 99.1 | 104.4 | 107.7 | 108.1 | 106.6 | 112.1 | 108.1 | 112.9 | 116.3 | 117.8 |
| *Nonmanufacturing* | | | | | | | | | | | | | | |
| Anthracite mining [5] | 38.5 | 36.3 | 40.0 | 40.6 | 36.5 | 33.1 | 39.3 | 32.3 | 37.6 | 42.7 | 38.5 | 45.2 | 42.4 | 24.3 |
| Bituminous-coal mining [5] | 81.2 | 72.2 | 75.3 | 73.9 | 75.2 | 82.5 | 83.2 | 83.6 | 84.5 | 91.4 | 87.8 | 90.8 | 93.8 | 15.5 |
| Metalliferous mining [6] | 66.7 | 63.4 | 65.7 | 65.3 | 63.6 | 68.5 | 69.5 | 71.3 | 69.8 | 72.8 | 70.4 | 71.8 | 72.7 | 76.9 |
| Quarrying and nonmetallic mining | 40.5 | 38.1 | 42.7 | 43.9 | 43.5 | 45.2 | 46.2 | 46.7 | 42.3 | 42.4 | 36.9 | 38.2 | 40.3 | 47.0 |
| Crude-petroleum production | 58.2 | 59.0 | 58.7 | 58.8 | 59.1 | 59.0 | 58.2 | 57.6 | 56.8 | 55.9 | 55.7 | 57.3 | 56.1 | 57.1 |
| Telephone and telegraph [7] | 100.2 | 98.7 | 98.8 | 100.0 | 101.3 | 100.4 | 101.8 | 102.2 | 103.2 | 103.5 | 103.9 | 104.3 | 106.4 | 108.1 |
| Electric light and power [7] | 104.8 | 103.3 | 104.2 | 104.8 | 105.8 | 108.1 | 105.8 | 107.0 | 106.9 | 106.0 | 105.1 | 105.4 | 106.1 | 107.8 |
| Street railways and busses [7 8] | 70.4 | 69.2 | 69.2 | 70.5 | 70.0 | 70.4 | 71.5 | 70.7 | 70.3 | 73.1 | 70.7 | 71.0 | 72.5 | 71.8 |
| Wholesale trade | 79.0 | 77.4 | 77.4 | 78.4 | 78.3 | 78.7 | 81.1 | 80.2 | 80.7 | 83.4 | 80.5 | 81.4 | 82.0 | 83.0 |
| Retail trade [7] | 84.2 | 82.3 | 83.4 | 84.8 | 82.6 | 81.5 | 85.1 | 85.8 | 87.1 | 97.3 | 83.7 | 84.6 | 86.2 | 91.3 |
| Year-round hotels [5] | 82.4 | 83.2 | 83.0 | 82.0 | 80.5 | 80.7 | 81.8 | 84.2 | 83.6 | 84.1 | 84.1 | 86.1 | 85.7 | 86.7 |
| Laundries [5] | 87.7 | 85.6 | 88.5 | 92.4 | 90.0 | 90.5 | 89.9 | 88.0 | 87.2 | 89.2 | 89.8 | 89.7 | 90.9 | 95.5 |
| Dyeing and cleaning [5] | 78.2 | 79.6 | 85.4 | 89.6 | 80.0 | 78.9 | 85.6 | 82.4 | 77.8 | 75.8 | 73.3 | 74.4 | 77.2 | 98.1 |

[1] 3-year average 1923–25=100—adjusted to preliminary 1939 Census of Manufactures. See tables 9, 10, and 11 of December 1940 Employment and Pay Rolls for comparable figures back to January 1919 for "all manufacturing" and January 1923 for "durable goods" and "nondurable goods."

[2] 12-month average for 1929=100. Comparable indexes for wholesale trade, quarrying, metal mining, and crude-petroleum production are in November 1934 and subsequent issues of Employment and Pay Rolls, or in February 1935 and subsequent issues of Monthly Labor Review. For other nonmanufacturing indexes see notes 5, 6, and 7.

[3] Includes: Iron and steel, machinery, transportation equipment, nonferrous metals, lumber and allied products, and stone, clay, and glass products.

[4] Includes: Textiles and their products, leather and its manufactures, food and kindred products, tobacco manufactures, paper and printing, chemicals and allied products, products of petroleum and coal, rubber products, and a number of miscellaneous industries not included in other groups.

[5] Indexes have been adjusted to the 1935 census. Comparable series from January 1929 forward are presented in January 1938 and subsequent issues of this pamphlet. See also table 7 of October 1940 pamphlet for revised figures for anthracite mining February 1940 to September 1940.

[6] See table 7 of February 1941 pamphlet for revised indexes January 1938 to January 1941.

[7] Retail-trade indexes adjusted to 1935 census and public-utility indexes to 1937 census. Not comparable with indexes published in Employment and Pay Rolls pamphlets prior to January 1940 or in Monthly Labor Review prior to April 1940. Comparable series January 1929 to December 1939 available in mimeographed form.

[8] Covers street railways and trolley and motorbus operations of subsidiary, affiliated, and successor companies.

## INDUSTRIAL AND BUSINESS EMPLOYMENT IN PRINCIPAL METROPOLITAN AREAS

A comparison of employment and pay rolls in March and April 1941 is made in table 10 for 13 metropolitan areas, each of which had a population of 500,000 or over in 1930. Cities within these areas but having a population of 100,000 or over are not included. Footnotes to the table specify which cities are excluded. Data concerning them have been prepared in a supplementary tabulation which is available on request. The figures represent reports from cooperating establish-

ments and cover both full- and part-time workers in the manufacturing and nonmanufacturing industries presented in table 6, with the exception of building construction, and include also miscellaneous industries.

Revisions made in the figures after they have gone to press, chiefly because of late reports by cooperating firms, are incorporated in the supplementary tabulation mentioned above. This supplementary tabulation covers these 13 metropolitan areas as well as other metropolitan areas and cities having a population of 100,000 or more according to the 1930 Census of Population.

TABLE 7.—*Comparison of Employment and Pay Rolls in Identical Establishments in March and April 1941, by Principal Metropolitan Areas*

| Metropolitan area | Number of establishments April 1941 | Number on pay roll April 1941 | Percentage change from March 1941 | Amount of pay roll (1 week) April 1941 | Percentage change from March 1941 |
|---|---|---|---|---|---|
| New York [1] | 13,629 | 799,701 | +2.4 | $24,080,646 | +1.7 |
| Chicago [2] | 4,351 | 527,427 | +3.5 | 16,129,795 | +5.7 |
| Philadelphia [3] | 2,477 | 274,688 | +2.2 | 8,054,292 | −.1 |
| Detroit | 1,540 | 403,719 | +1.0 | 14,172,976 | −8.5 |
| Los Angeles [4] | 2,849 | 237,247 | +4.2 | 7,647,468 | +7.1 |
| Cleveland | 1,576 | 163,039 | +3.7 | 5,357,658 | +3.0 |
| St. Louis | 1,400 | 154,847 | +1.3 | 4,135,248 | +1.8 |
| Baltimore | 1,117 | 143,953 | +4.2 | 4,232,126 | +5.8 |
| Boston [5] | 2,964 | 219,482 | +2.2 | 6,188,549 | +2.6 |
| Pittsburgh | 1,313 | 231,246 | −2.2 | 7,996,519 | +2.8 |
| San Francisco [6] | 1,733 | 103,424 | −(7) | 3,350,211 | −.9 |
| Buffalo | 798 | 112,571 | +3.5 | 3,600,787 | +3.8 |
| Milwaukee | 992 | 130,341 | +8.9 | 4,142,142 | +8.6 |

[1] Does not include Elizabeth, Jersey City, Newark, or Paterson, N. J., or Yonkers, N. Y.
[2] Does not include Gary, Ind.
[3] Does not include Camden, N. J.
[4] Does not include Long Beach, Calif.
[5] Does not include Cambridge, Lynn, or Somerville, Mass.
[6] Does not include Oakland, Calif.
[7] Less than 1/10 of 1 percent.

## WAGE-RATE CHANGES IN AMERICAN INDUSTRIES

The following table gives information concerning wage-rate adjustments occurring during the month ending April 15, 1941, as shown by reports received from manufacturing and nonmanufacturing establishments which supply employment data to this Bureau.

As the Bureau's survey does not cover all establishments in an industry, and furthermore, as some firms may have failed to report wage-rate changes, these figures should not be construed as representing the total number of wage changes occurring in manufacturing and nonmanufacturing industries.

TABLE 8.—*Wage-Rate Changes Reported by Manufacturing and Nonmanufacturing Establishments During Month Ending April 15, 1941* [1] [2]

| Group and industry | Establishments | | Employees | | Average percentage change in wage rates of employees having increases |
|---|---|---|---|---|---|
| | Total number reporting | Number reporting increases | Total number covered | Number having increases | |
| **All manufacturing** | **33,850** | **1,222** | **6,954,741** | **813,621** | **9.6** |
| **Iron and steel group** | **2,595** | **306** | **1,013,980** | **478,333** | **11.1** |
| Blast furnaces | 353 | 177 | 544,078 | 434,216 | 11.3 |
| Bolts, nuts, and washers | 66 | 4 | 17,302 | 1,552 | 8.5 |
| Cast-iron pipe | 69 | 11 | 18,710 | 3,057 | 9.9 |
| Forgings | 93 | 5 | 17,065 | 1,280 | 10.4 |
| Hardware | 165 | 6 | 53,976 | 2,975 | 9.4 |
| Plumbers' supplies | 109 | 4 | 27,968 | 320 | 8.3 |
| Stamped and enameled ware | 241 | 13 | 49,563 | 6,522 | 9.7 |
| Steam and hot-water fittings | 111 | 8 | 39,194 | 3,307 | 6.1 |
| Stoves | 244 | 8 | 40,553 | 1,623 | 6.4 |
| Structural and ornamental metalwork | 310 | 25 | 34,410 | 7,243 | 11.4 |
| Tin cans | 136 | 5 | 28,809 | 1,319 | 4.6 |
| Tools (not including edge tools, machine tools, files, and saws) | 132 | 4 | 19,418 | 572 | 5.8 |
| Wirework | 168 | 8 | 29,185 | 1,300 | 6.1 |
| Screw-machine products | 79 | 8 | 13,912 | 1,954 | 9.8 |
| Wire (not made in rolling mills) | 45 | 6 | 17,048 | 3,138 | 10.8 |
| Wrought pipe | 26 | 5 | 8,132 | 1,428 | 11.4 |
| **Machinery group** | **3,815** | **155** | **1,068,857** | **44,308** | **6.7** |
| Agriculture implements (including tractors) | 107 | 3 | 57,006 | 495 | 3.5 |
| Electrical machinery | 591 | 21 | 305,355 | 19,229 | 5.5 |
| Engines, turbines, water wheels, and windmills | 69 | 4 | 74,949 | 2,012 | 10.8 |
| Foundry and machine-shop products | 2,243 | 108 | 334,748 | 14,808 | 8.0 |
| Machine tools | 201 | 4 | 88,200 | 3,187 | 5.6 |
| Radios and phonographs | 72 | 3 | 46,232 | 3,738 | 5.9 |
| Textile machinery and parts | 128 | 5 | 22,761 | 203 | 9.6 |
| Pumps | 106 | 4 | 22,861 | 167 | 8.0 |
| **Transportation group** | **777** | **24** | **849,483** | **39,780** | **5.5** |
| Aircraft | 88 | 5 | 151,862 | 22,009 | 5.0 |
| Automobiles | 411 | 5 | 485,097 | 3,313 | 5.5 |
| Cars, electric- and steam-railroad | 73 | 4 | 38,077 | 3,110 | 6.9 |
| Shipbuilding | 161 | 8 | 152,735 | 11,257 | 6.1 |
| **Nonferrous group** | **1,093** | **44** | **239,739** | **11,876** | **8.6** |
| Brass, bronze, and copper products | 342 | 20 | 91,458 | 1,688 | 5.8 |
| Lighting equipment | 93 | 3 | 14,883 | 616 | 5.8 |
| Smelting and refining—copper, lead, and zinc | 53 | 6 | 29,705 | 2,715 | 7.5 |
| Sheet metal work | 131 | 4 | 7,310 | 144 | 6.2 |
| Smelting and refining (scrap metal) | 27 | 3 | 3,686 | 465 | 3.3 |
| **Lumber group** | **2,729** | **67** | **359,188** | **10,307** | **10.5** |
| Furniture | 721 | 11 | 107,578 | 3,706 | 16.2 |
| Millwork | 593 | 12 | 40,240 | 887 | 5.7 |
| Sawmills | 780 | 20 | 138,586 | 3,313 | 7.4 |
| Wood—turned and shaped | 86 | 3 | 6,411 | 119 | 7.0 |
| Wooden boxes (other than cigar) | 140 | 15 | 14,506 | 970 | 8.8 |
| Fabricated plastic and wood pulp products | 72 | 3 | 18,631 | 989 | 7.7 |
| **Stone, clay, and glass** | **1,601** | **81** | **219,639** | **21,515** | **10.4** |
| Brick, tile, and terra cotta | 545 | 32 | 44,888 | 5,476 | 13.1 |
| Cement | 135 | 7 | 22,027 | 953 | 8.3 |
| Marble, granite, slate, and other products | 247 | 10 | 6,076 | 170 | 8.9 |
| Pottery | 137 | 19 | 34,766 | 10,519 | 9.6 |
| Lime | 89 | 3 | 6,946 | 321 | 9.9 |
| **Textiles and their products** | **6,649** | **231** | **1,396,087** | **131,920** | **8.0** |
| Fabrics | 3,535 | 210 | 1,039,241 | 126,049 | 8.2 |
| Cotton goods | 848 | 86 | 435,372 | 70,482 | 8.3 |
| Cotton small wares | 133 | 9 | 14,706 | 1,144 | 6.2 |
| Dyeing and finishing textiles | 229 | 16 | 63,161 | 7,108 | 8.2 |
| Knit underwear | 142 | 3 | 41,245 | 705 | 6.4 |
| Silk and rayon goods | 417 | 33 | 80,061 | 18,769 | 9.9 |

See footnotes at end of table.

TABLE 8.—*Wage-Rate Changes Reported by Manufacturing and Nonmanufacturing Establishments During Month Ending April 15, 1941*—Continued

| Group and industry | Establishments | | Employees | | Average percentage change in wage rates of employees having increases |
|---|---|---|---|---|---|
| | Total number reporting | Number reporting increases | Total number covered | Number having increases | |
| **Textiles and their products**—Continued. | | | | | |
| Fabrics—Continued. | | | | | |
| Woolen and worsted goods | 415 | 37 | 160,340 | 20,284 | 7.4 |
| Cordage and twine | 57 | 4 | 12,132 | 653 | 5.5 |
| Wearing apparel | 3,114 | 21 | 356,826 | 5,871 | 4.7 |
| Men's clothing | 1,165 | 12 | 149,351 | 1,058 | 7.3 |
| Shirts and collars | 277 | 6 | 58,718 | 4,337 | 4.3 |
| **Leather group** | **1,087** | **22** | **249,247** | **6,055** | 5.2 |
| Boots and shoes | 518 | 3 | 177,221 | 1,824 | 1.8 |
| Leather | 183 | 7 | 39,631 | 2,650 | 5.1 |
| Boot and shoe cut-stock and findings | 128 | 3 | 10,488 | 126 | 5.7 |
| Leather gloves and mittens | 53 | 8 | 7,766 | 1,436 | 9.8 |
| **Food group** | **5,365** | **95** | **435,501** | **11,426** | 7.3 |
| Baking | 1,069 | 14 | 83,135 | 941 | 6.9 |
| Beverages | 636 | 12 | 40,294 | 1,675 | 5.6 |
| Butter | 326 | 7 | 5,925 | 319 | 5.8 |
| Canning | 1,025 | 21 | 59,327 | 3,444 | 8.7 |
| Flour | 350 | 4 | 14,940 | 85 | 4.9 |
| Ice cream | 281 | 7 | 9,469 | 291 | 4.2 |
| Cereal preparations | 23 | 3 | 7,043 | 1,269 | 7.4 |
| Condensed and evaporated milk | 106 | 5 | 6,204 | 216 | 14.0 |
| Feeds, prepared | 96 | 5 | 3,754 | 320 | 8.3 |
| **Tobacco group** | **224** | **3** | **66,629** | **2,536** | 10.3 |
| **Paper and printing** | **4,064** | **62** | **396,572** | **10,698** | 6.1 |
| Paper boxes | 680 | 8 | 47,523 | 424 | 6.0 |
| Paper and pulp | 453 | 25 | 140,568 | 7,202 | 6.3 |
| Printing: | | | | | |
| Book and job | 1,630 | 14 | 85,079 | 419 | 4.8 |
| Newspapers and periodicals | 734 | 5 | 63,277 | 1,498 | 5.2 |
| Envelopes | 64 | 3 | 7,054 | 216 | 5.5 |
| **Chemicals, petroleum, and coal products** | **2,354** | **98** | **360,857** | **33,938** | 6.2 |
| Chemicals | 240 | 20 | 71,218 | 5,989 | 6.6 |
| Fertilizers | 324 | 5 | 23,853 | 588 | 6.2 |
| Paints and varnishes | 521 | 19 | 24,796 | 1,766 | 5.9 |
| Petroleum refining | 182 | 24 | 70,563 | 15,866 | 5.0 |
| Liquors, distilled | 99 | 5 | 12,555 | 2,328 | 7.0 |
| Coke-oven products | 21 | 7 | 7,114 | 1,378 | 12.9 |
| **Rubber group** | **257** | **9** | **128,127** | **6,325** | 7.8 |
| Rubber goods, other | 206 | 7 | 50,955 | 4,438 | 8.1 |
| **Miscellaneous** | **1,240** | **25** | **170,855** | **4,604** | 6.8 |
| Roofing materials | 24 | 4 | 3,464 | 531 | 6.8 |
| Mattresses and bedsprings | 193 | 4 | 11,120 | 129 | 5.6 |
| **All nonmanufacturing (except building construction)** | ***95,949** | **286** | ***2,984,279** | **23,549** | 8.1 |
| Metalliferous mining | *387 | 38 | *71,202 | 12,178 | 9.3 |
| Quarrying and nonmetallic mining | *1,090 | 18 | *35,263 | 383 | 9.1 |
| Crude petroleum | *494 | 12 | *39,438 | 2,918 | 5.5 |
| Electric light and power | *2,871 | 19 | *245,134 | 197 | 9.6 |
| Manufactured gas | *169 | 3 | *34,202 | 430 | 7.0 |
| Street railways and busses | *352 | 9 | *130,198 | 1,612 | 4.2 |
| Wholesale trade | *15,455 | 104 | *346,450 | 3,019 | 7.7 |
| Retail trade | *55,176 | 70 | *1,030,294 | 2,174 | 8.0 |
| Hotels | *2,055 | 3 | *151,730 | 262 | 5.1 |
| Laundries | *1,386 | 4 | *85,663 | 260 | 12.8 |

[1] Figures are not given for some industries to avoid disclosure of information concerning individual establishments. They are, however, included where practicable in "All manufacturing," in "All nonmanufacturing," and in the various industry groups.

[2] No decreases reported.

*Approximate—based on previous month's sample.

# Recent Publications of Labor Interest

## JULY 1941

### Agriculture

*Changing structure of agriculture and its impacts on labor.* By John A. Hopkins. (In Journal of Farm Economics, Menasha, Wis., February 1941, pp. 89–111.)

Developments in farm technology and loss of export markets are described as among the principal factors that have caused a change in the structure of agriculture, involving in turn a continuing reduction in opportunities for farm workers. The author suggests that the maintenance of satisfactory earnings and living standards requires in the first place the establishment of conditions of economic health for the Nation as a whole, and in the second place the incorporation of the excess population of rural areas as productive workers in industries other than agriculture.

*Sharecroppers and wage laborers on selected farms in two counties in South Carolina.* By E. J. Holcomb and G. H. Aull. Clemson, S. C., Clemson Agricultural College, Agricultural Experiment Station, 1940. 70 pp., charts. (Bull. 328.)

Some of the information contained in this bulletin was given in an article on Wage Laborers and Sharecroppers in Cotton Production in the November 1940 Monthly Labor Review, summarizing a statement presented before a subcommittee of the Senate Committee on Education and Labor.

*Agricultural policies of British Malaya.* By W. I. Ladejinsky. (In Foreign Agriculture, U. S. Office of Foreign Agricultural Relations, Washington, April 1941, pp. 159–164.)

In this article the writer discusses land tenure, agricultural science, plantation labor, and cooperative societies; in the March number of Foreign Agriculture he reviewed the general agricultural situation in British Malaya.

*Mesures propres à atténuer la pénurie de main-d'oeuvre agricole.* Brougg, Switzerland, Secrétariat des paysans suisses, 1940. 99 pp., plans. (Publication No. 126.)

The study deals with the shortage of agricultural workers which began in Switzerland in 1938 and discusses measures for preventing the rural exodus, among them being the improvement of working and housing conditions.

### Consumer Problems

*The pros and cons of consumer credit.* By Constance Kent. New York, Workers Education Bureau Press, Inc., 1941. 30 pp.

Tells, in dialog form, the charges involved in buying a house under FHA insurance, of buying an automobile in installments, of taking out a loan from a company operating under a small-loan law, and of financing sickness (such as an appendectomy) on the prepayment medical-care plan. Points out that "among the millions who borrow money repayable in installments, only two groups of borrowers find out in advance, whether they ask it or not, exactly what the loan will cost, not only in dollars but also in terms of percent per month on the unpaid balance. These two groups are borrowers from credit unions and borrowers from licensed personal finance companies."

*10 close-ups of consumer credit.* Washington, U. S. Farm Credit Administration, 1940. 46 pp., illus. (Circular 25.)

Reprint of 10 articles on consumer credit (including one on credit unions) which appeared in the Consumers' Guide (issued by Consumers' Counsel Division of Agricultural Adjustment Administration).

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EDITOR'S NOTE.—The Bureau of Labor Statistics does not distribute the publications to which reference is made in this list, except those issued by the Bureau itself. For all others, please write to the respective publishing agencies mentioned.

*Government agencies of consumer installment credit.* By Joseph D. Coppock. New York, National Bureau of Economic Research, 1940. 213 pp. (Studies in consumer installment financing, No. 5.)

Covers the work of the Federal Housing Administration and the Electric Home and Farm Authority.

*Industrial banking companies and their credit practices.* By Raymond J. Saulnier. New York, National Bureau of Economic Research, 1940. 189 pp. (Studies in consumer installment financing, No. 4.)

## *Economic and Social Problems*

*Economics of labor.* By Richard A. Lester. New York, Macmillan Co., 1941. 913 pp.

Analysis of economic aspects of labor problems, designed as a textbook for college courses, in which, "insofar as possible, the new market analysis of monopolistic or imperfect competition is here applied to labor and labor problems." One of the book's five parts is devoted to collective bargaining in certain industries—rail and water transportation, bituminous coal, clothing, iron and steel, and newspapers.

*Explorations in citizenship: Proceedings of Citizen's Conference on Government Management, Estes Park, Colo., June 17–22, 1940.* Edited by A. D. H. Kaplan. Denver, University of Denver, School of Commerce, Accounts, and Finance, [1940?]. xxvii, 501 pp.

The subjects covered at the various sessions of the conference included the employment policy of the Government, the relief program, the role of citizens' groups in self-government, taxation, and personnel standards in civil service.

*Fiscal policy and business cycles.* By Alvin H. Hansen. New York, W. W. Norton & Co., Inc., 1941. 462 pp., charts.

The author writes against the background of the past decade and emphasizes the changing role of Government, particularly in relation to fiscal policy as an instrument for regulating the national income and its distribution. There is emphasis on the decline of what is called extensive expansion, associated with rapid population growth and acquisition of new markets. It is held, therefore, that there must be an increasing dependence on intensive expansion in such forms as the growth of internal consumption. On this subject the author's views relating to wage rates and price policy are particularly significant. He states that wage advances do not in themselves justify price increases and that such advances are a desirable accompaniment of increasing productivity.

*The mind of the South.* By W. J. Cash. New York, Alfred A. Knopf, 1941. 429 pp.

A keen and critical but sympathetic analysis by a southern journalist. The author's approach is literary and imaginative rather than technical, but his first-hand experiences are reinforced by a knowledge of the social sciences. The present conditions and points of view prevailing in the South are placed in the background of southern history. There is much information about class relations and the effects of prevailing attitudes and policies on the working classes. The author also analyzes southern mentality in its relation to the predominant problem of adaptability to rapidly changing world conditions.

*Your community, its provision for health, education, safety, and welfare.* By Joanna C. Colcord. New York, Russell Sage Foundation, 1941. 261 pp., bibliography.

This volume is designed for the use of social workers and students, as well as for other groups interested in social conditions. Each section contains a list of questions designed to bring out the facts in areas studied.

## *Education and Training*

*Employee training.* New York, National Association of Manufacturers, 1941. 26 pp. (N. A. M. labor relations bulletin.)

The report contains articles on the problem of the supply of labor in connection with the preparedness program, job training, and governmental labor policy during World War I, and statements by the association on the training task which industry faces and the principles governing supervisory relations.

*How to teach a job.* By R. D. Bundy. New York, National Foremen's Institute, Inc., 1941. 63 pp.

*Training for defense—a selected bibliography.* Cambridge, Mass., Massachusetts Institute of Technology, Industrial Relations Section, February 1941. 6 pp.; mimeographed.

*The training of shipyard personnel.* New York, Society of Naval Architects and Marine Engineers, 1941. 37 pp., bibliography.

The report, by a special committee of the Society of Naval Architects and Marine Engineers, covers the current methods of training personnel in the Navy Yards and shipyards of the country. It deals with training of apprentices, supervisors, draftsmen, young engineers, and learners and helpers.

*Training white collar employees.* By G. R. Rowe. New York, National Industrial Conference Board, Inc., 1941. 59 pp., bibliography. (Studies in personnel policy, No. 36.)

Describes the training programs of five companies. The writer concludes that "the application of scientifically planned training procedures to white collar personnel is gaining rapidly through the increased realization by operating management that the work of these employees is parallel in importance to that of industrial production workers."

## *Employment and Unemployment*

*Defense employment and training for employment.* Washington, U. S. Office of Government Reports, 1941. 23 pp.

The booklet contains general information on employment and training opportunities offered by different governmental agencies in occupations vital to national defense.

*Development of resources and stabilization of employment in the United States: Part I, The Federal program for national development; Part II, Regional development plans; Part III, Functional development policies.* Washington, U. S. National Resources Planning Board, 1941. Various paging, maps, charts.

*Full employment.* By John H. G. Pierson. New Haven, Yale University Press, 1941. 297 pp.

The author discusses the extent and causes of unemployment and the alternative economic mechanisms of planned production on the one hand and production for market on the other. In general, no attempt is made to present a program for ending unemployment but rather to set down the conditions under which unemployment would not exist and thus to lay the necessary groundwork for a full-employment program.

*Controversial aspects of unemployment estimates in the United States.* By W. S. Woytinsky. (In Review of Economic Statistics, Cambridge, Mass., May 1941, pp. 68–77.)

The writer considers the disparities in unemployment estimates of official and nonofficial sources. He concludes that if the returns of the 1940 census are trustworthy all current estimates of unemployment are biased upwards. The article attempts to find the source of this bias, and to suggest measures likely to reduce its magnitude in the future.

*Handbook for young job hunters.* New York, Metropolitan Employment Counselors, 1940. 35 pp.

Based upon the experience of trained employment managers who have met annually thousands of applicants.

## *Health and Industrial Hygiene*

*Disabling sickness among industrial workers, with particular reference to time changes in duration.* By William M. Gafafer. (In American Journal of Public Health, Albany, N. Y., May 1941, pp. 443–451; diagrams.)

This study is based on data secured in the National Health Survey made in 1935–36, and covers a group of about 30,000 white male industrial workers. It shows that in the period 1930–34 the average frequency of disabilities lasting 8 days or longer followed a downward trend, but the average duration of the disabilities moved upward.

*Proceedings of third annual congress on industrial health, Chicago, January 13–14, 1941.* Chicago, American Medical Association, Council on Industrial Health, 1941. 58 pp., illus.

The Congress gave special consideration to hand injuries, acute respiratory disease in industry, and industrial opthalmology, while the papers presented at the general sessions covered a wide variety of subjects relating to industrial health.

*Dieci lezioni di medicina industriale.* Ciriè, Italy, Ente Nazionale di Propaganda per la Prevenzione degli Infortuni, 1940. 87 pp.

Ten papers by different writers on topics pertaining to industrial medicine, such as symptoms and treatment of various occupational diseases, care of minor accidents, etc.

*Prepayment plans for medical care.* By Franz Goldman, M. D. New York, Joint Committee of Twentieth Century Fund and Good Will Fund, and Medical Administration Service, Inc., [1941?]. 60 pp.

The study takes up the subject from two angles: A discussion of the principles underlying voluntary prepayment of medical care, illustrated by examples of plans in operation, and a comparative study of five plans of organized medical care for self-supporting people.

*Proceedings of hospital service plan session and round table of forty-second annual convention of American Hospital Association, Boston, Mass., September 16–17, 1940.* Chicago, American Hospital Association, [1940?]. 56 pp.

The papers and discussions covered recent developments in hospital service plans, the future of such plans, and hospital plans and employee health.

## *Industrial Relations*

*Economic factors affecting industrial relations policy in national defense.* By Sumner H. Slichter. New York, Industrial Relations Counselors, Inc., 1941. 111 pp. (Industrial relations monograph No. 6.)

The study deals with the size and costs of the defense program and the employment which will be created by expenditures for armaments, as well as the effects on cost of living, problems raised by the Fair Labor Standards Act and the Public Contracts Act in a period of expanding employment, and other labor and economic questions arising from the defense effort.

*Problems relating to the employer-employee relationship under the Fair Labor Standards Act.* By Kenneth C. Robertson. Washington, U. S. Department of Labor, Wage and Hour Division, 1941. 45 pp.

Printed for the use of attorneys of the Wage and Hour Division, the caution is expressed that the memorandum was prepared in 1939 and that certain new developments may have changed the effects of certain portions of the study.

*Representation problems under New York State Labor Relations Act.* By Walter P. Arenwald and Donald M. Landay. (In University of Chicago Law Review, Chicago, April 1941, pp. 471–502; also reprinted.)

*Report of New York State Joint Legislative Committee on Industrial and Labor Conditions.* Albany, 1941. 88 pp. (Legislative document, 1941, No. 51.)

The work of the committee during the past year was particularly directed toward those features of industrial and labor relations occasioned by the requirements of national defense and increased production. In this report the committee recommends an increase in the staff and appropriation for the State Board of Mediation, creation of special boards of inquiry to function in those labor disputes which are not settled by mediation, enactment of legislation to provide for advance notice of intent to engage in a strike or lock-out, abolition of cross picketing, and development of a program to educate the public in the functions of the agencies dealing with labor relations. Special attention was given by the committee to the migration of industrial enterprises from the State.

*Industry planning through collective bargaining: A program for modernizing the New York dress industry as presented in conference with employers on behalf of joint board of dressmakers' union.* By Julius Hochman. New York, International Ladies' Garment Workers' Union, January 1941. 51 pp., charts.

*Shift operation under defense conditions.* By Harold F. Browne. New York, National Industrial Conference Board, Inc., 1941. 11 pp. (Studies in personnel policy No. 35.)

A study of problems in shift operation covering 193 companies, mostly in metal-working industries. Only 35 of the companies were operating only 5 days

a week. Overtime work was very general and ranged, in terms of plant operation, from 1 to 90 percent, with more than half the companies reporting from 10 to 30 percent. The policies of the companies regarding assignment of men in multiple-shift plants, rotation of shifts, and wage rates on different shifts are discussed.

*Local progress in labor peace.* By William L. Nunn. New York, National Municipal League, 1941. 27 pp.

The pamphlet brings together 3 articles originally published in the National Municipal Review. One article deals with the work of the Toledo (Ohio) Industrial Peace Board and another with that of the Newark (N. J.) Labor Relations Board; the third summarizes answers returned by 80 cities to a questionnaire, sent out by the National Municipal League, inquiring as to their policies in dealing with labor disputes.

*The rights of strikers.* By Leonard B. Boudin. (In Illinois Law Review, Chicago, Ill., March 1941, pp. 817–839.)

*Strikes in defense industries during 1940.* Washington, U. S. Bureau of Labor Statistics, 1941. 5 pp. (Serial No. R. 1291, reprint from April 1941 Monthly Labor Review.)

## *Labor and Social Legislation*

*Proceedings of seventh national conference on labor legislation, Washington, D. C., December 9–11, 1940.* Washington, U. S. Department of Labor, Division of Labor Standards, 1941. 122 pp. (Bull. No. 45.)

*Recent legislative and executive action restricting right of married women to work.* New York, National Federation of Business and Professional Women's Clubs, Inc., 1940. 14 pp.; mineographed. Rev. ed.

*Dez anos de legislação social [Brazil].* Rio de Janeiro, Ministério do Trabalho, Industria e Comércio, 1940. xiv, 156 pp.

Index of social and labor legislation enacted in Brazil from 1930 through October 7, 1940, in which the enactments are listed numerically, chronologically, and topically.

*Legislação Brasileira do trabalho.* Compiled by C. J. Dunlop. Rio de Janeiro, Empreza Almanak Laemmert, Ltda., 1939. 1160 pp.

Annotated compilation of labor legislation in force in Brazil in March 1939, arranged by topics and indexed.

*Legislación social de Cuba.* By José R. García Pedrosa. Habana, La Moderna Poesia, 1940. 495 pp. (Biblioteca de la Revista Cubana de Derecho, Serie C, Vol. VI.)

Annotated compilation of Cuban social and labor legislation enacted mainly in 1939, with subject and chronological indexes. This volume continues the collection of text of such legislation begun with the issuance of a work by the same compiler in 1936.

## *Migration and Migratory Workers*

*Caravans to the Northwest.* By John Blanchard, under direction of Northwest Regional Council, Portland, Oreg. Boston, New York, etc., Houghton Mifflin Co., 1940. 123 pp., maps, charts, illus.

In this book the author attempts to give an insight into who the migrants to the Northwest are, where they come from and why, conditions they find in the regions to which they migrate, obstacles that confront them, and possible solutions to the problems they create.

*Characteristics of migrants.* By T. Lynn Smith. (In Southwestern Social Science Quarterly, Baton Rouge, La., March 1941, pp. 335–350.)

The article discusses definitions of migration, types of migration, and race, residence, age, distribution, sex, physical fitness, and intelligence of migrants.

*A brief analysis of the problems confronting the migratory worker in Oklahoma.* Oklahoma City, Department of Labor, Division of Unemployment Compensation and Placement, 1940. 27 pp.; mimeographed.

*Migration and settlement on the Pacific Coast: Report No. 4, New farms on new land.* By Carl P. Heisig and Marion Clawson. Washington, U. S. Bureau of Agricultural Economics, in cooperation with Oregon Agricultural Experiment Station and U. S. Farm Security Administration, 1941. 123 pp., maps, charts.

The first to be issued of 12 proposed reports dealing with the problems of migration and settlement on the Pacific Coast. It deals with settlement on a new irrigation project in eastern Oregon and contains suggestions for economic development of future reclamation areas.

*Migration and resettlement in Pacific Northwest, 1930–1940.* By Davis McEntire and Marion Clawson. (In Social Science, Menasha, Wis., April 1941, pp. 102–115.)

The authors discuss the extent of migration to the Pacific Northwest in recent years; the geographic origins, occupational background, employment opportunities, and social and living conditions of the migrants; and probable future developments.

*Norwegian migration to America—the American transition.* By Theodore C. Blegen. Northfield, Minn., Norwegian-American Historical Association, 1940. 655 pp., maps, illus.

This analysis of the interaction of the Norwegian heritage and of American environment makes an unusual approach to an understanding of the basic social forces of American life.

## *Negro in Industry*

*The Negro's opportunity.* By Henry L. Jones. Los Angeles, Calif., Henry L. Jones and Co., 1940. 208 pp.

A collection of articles, stories, and reports on successful ventures, compiled for the purpose of suggesting to Negroes worthwhile opportunities in various fields.

*Does type of education affect Negroes' careers?* By Anne S. Loop. (In Occupations—the Vocational Guidance Magazine, New York, March 1941, pp. 430–435.)

The data for this study were secured from the employment records of 6,799 cases of which 5,553 were drawn from the New York Urban League.

*The Negro worker in New York City.* By Lester B. Granger. New York, Welfare Council of New York City, Committee on Negro Welfare, 1941. 32 pp.

Prepared as a guide for the discussion of various problems concerned with racial employment policies in New York City.

*Findings and principal addresses, Hampton Institute Conference on participation of the Negro in national defense, Hampton, Virginia, November 25–26, 1940.* Hampton, Va., Hampton Institute, [1941?]. 61 pp.; mimeographed.

Agriculture, housing, industry and labor, public health and recreation, and youth and education, were among the subjects covered by the reports submitted to the meeting.

*Biennial report of Bureau of Negro Welfare and Statistics of State of West Virginia, 1939–1940.* Charleston, [1941?]. 140 pp., illus.

An appendix to the report gives the Proceedings of the West Virginia State Conference on the Welfare of the Negro, held in Charleston in May 1940.

*Selected bibliography on the Negro.* New York, National Urban League, November 1940. 58 pp.; mimeographed. 3d ed.

One section of the bibliography lists publications dealing with social and economic problems.

## *Occupations*

*American job trends.* By H. Dewey Anderson and Percy E. Davidson. Chicago, Science Research Associates, 1941. 52 pp., charts, illus. (Occupational monograph No. 22; American job series.)

A study of the ups and downs in various important job fields in the United States.

*Occupational outlook research.* By Donald H. Davenport and Emmett H. Welch. (In Public Personnel Review, Chicago, April 1941, pp. 123–129.)

The authors discuss the changes in the occupational opportunities in the United States, particularly as a result of the prolonged depression, and the practical

applications of occupational-outlook research, and summarize the program of the Bureau of Labor Statistics' Occupational Outlook Service.

*Opportunities in aircraft manufacture.* Burbank, Calif., Lockheed Aircraft Corporation and Vega Airplane Co., Industrial Relations Office, Education Service, [1941?]. 16 pp., illus.

Gives some answers to the numerous questions asked by those interested in aircraft occupations.

*Forestry.* By R. D. Fleming. Albany, University of State of New York, Bureau of Guidance, 1940. 33 pp.; mimeographed. Rev. ed. (Occupational information monograph No. 12.)

Prepared to aid public-school counselors, others who come in contact with youth seeking occupational data, and the young people themselves, in securing authoritative and first-hand information on occupations.

*Machinists' occupations.* Chicago, National Youth Administration for Illinois, 1941. 28 pp., bibliography; mimeographed.

Revision of a monograph originally issued in 1936 by National Youth Administration for Illinois. The new material includes a discussion of participation of machinists in national defense, wage statistics, an appraisal of present employment possibilities, and a current bibliography.

*Selected references on occupations for girls and women.* Washington, U. S. Office of Education, Vocational Division, 1940. 56 pp.; mimeographed.

Excerpts from Office of Education list of "References and related information on vocational guidance for girls and women."

## *Personnel Management*

*How to supervise people.* By Alfred M. Cooper. New York and London, McGraw-Hill Book Co., Inc., 1941. 150 pp.

The ideas and suggestions presented in this book represent an epitome of the opinions of many experienced supervisors who attended conferences conducted by the author.

*A contribution to manual aptitude measurement in industry: The value of certain dexterity measures for the selection of workers in a watch factory.* By Milton L. Blum. (In Journal of Applied Psychology, Athens, Ohio, August 1940, pp. 381–416; also reprinted.)

*Experience with employment tests.* New York, National Industrial Conference Board, Inc., 1941. 72 pp. (Studies in personnel policy, No. 32.)

The data in the report were obtained from companies which were known to have used employment tests for a sufficiently long time to determine their worth. The tests studied included intelligence or mental-alertness tests, mechanical tests, trade tests, clerical tests, personality tests, and interest tests, and there is a summary of methods used in introducing tests in a company. The second part of the study gives the experience with tests in several companies.

*Psychological aids in the selection of workers.* New York, American Management Association, 1941. 43 pp., charts, illus. (Personnel series No. 50.)

*Selecting, training and upgrading supervisors, instructors, production workers.* By Jerome H. T. Kidder. New York, National Industrial Conference Board, Inc., 1941. 72 pp. (Studies in personnel policy, No. 37.)

The report is designed to supply executives with facts which will be helpful in solving, through upgrading and training, some of the labor shortages in their own plants. The programs in five companies are described.

*Public personnel administration.* By William E. Mosher and J. Donald Kingsley. New York and London, Harper & Brothers, 1941. 671 pp., bibliography. Rev. ed.

The subjects covered in this volume include development and significance of the public service, employment, training and terms of employment, compensation and other positive incentives, and employee relations, working conditions, and reporting.

## *Production and Technological Changes*

*America's factories, 1899–1937.* By Maxwell S. Stewart. New York, Public Affairs Committee, Inc., 1941. 31 pp., charts. (Public affairs pamphlet No. 55.)

Summary data from "The output of manufacturing industries, 1899–1937," by Solomon Fabricant, published by National Bureau of Economic Research (New York) in 1940, and reviewed in the March 1941 Monthly Labor Review (p. 781.)

*Changing technology and employment in agriculture.* By John A. Hopkins. Washington, U. S. Bureau of Agricultural Economics, 1941. 189 pp., charts.

An appraisal of the effect of technological changes on employment in agriculture since 1909, based largely on 12 monographs published by the U. S. Work Projects Administration National Research Project and on other monographs of this agency still in preliminary form. The more important of these monographs were summarized in earlier numbers of the Monthly Labor Review.

*Coal mine mechanization yearbook, 1940.* Washington, American Mining Congress, 1940. 381 pp., diagrams, illus.

Includes convention proceedings and reports on the various phases of mine mechanization.

*Technology and society: The influence of machines in the United States.* By S. McKee Rosen and Laura Rosen. New York, Macmillan Co., 1941. 474 pp., charts, illus.

A nontechnical study in a form suited to textbook use. There is a discussion of technological changes in main fields of enterprise, followed by sections on the economic, social, and political effects of current technological methods. Selected references are given at the end of each chapter.

*The devil of the machine age.* By J. Russell Smith. New York, Harcourt Brace & Co., 1941. 89 pp.

The author does not oppose technological progress but criticises the various efforts, public and private, to maintain scarcity as the basis of profits. In answering the question "Is the profit motive enough?" he offers various suggestions not for wholly supplanting but for transforming and supplementing private business for profit.

## *Social Security*

*Social insurance for permanently disabled workers.* By A. J. Altmeyer. (In Social Security Bulletin, U. S. Social Security Board, Washington, March 1941, pp. 3–10.)

*Report, to the Governor, of the New Hampshire Commission on Disability Benefits.* Concord, Concord Press, 1941. 49 pp.

The Commission recommended the establishment of a system of compensation for unemployment during temporary disability from sickness or nonindustrial accident, as a part of the unemployment-compensation system.

*Introducción de los seguros sociales en Bolivia.* La Paz, Ministerio del Trabajo y Previsión Social, 1940. 84 pp.

A survey of the situation with respect to social insurance in Bolivia, as analyzed early in 1940 by a representative of the International Labor Office, with respect to workmen's compensation, compulsory savings, and retirement and pension schemes, and a proposal for a more comprehensive scheme of social insurance which would include sickness insurance (maternity and tuberculosis).

*The health services [Great Britain].* Report by R. B. Thomas to an Oxford Committee of the Fabian Society. London, Victor Gallancz Ltd., and Fabian Society, [1941?]. 44 pp. (Fabian Society research series No. 49.)

The report covers the British maternity and child welfare services, the school medical services, and the tuberculosis service.

*A survey of the social services in the Oxford district.* London, Oxford University Press, 1938 and 1940. 2 vols.

One volume deals with economics and government, and the other with local administration, in a changing area. Interest in problems relating to the movement of industry within Great Britain makes this survey of statutory and voluntary social services significant at this time.

## *Wages and Hours of Labor*

*Employment and earnings in 1940.* By Witt Bowden. Washington, U. S. Bureau of Labor Statistics, 1941. 18 pp. (Serial No. R. 1269, reprint from March 1941 Monthly Labor Review.)

*Earnings in manufacture of rubber products, May 1940.* By Sidney C. Sufrin and Donald L. Helm. Washington, U. S. Bureau of Labor Statistics, 1941. 35 pp. (Serial No. R. 1283.)

*Hours administration as influenced by the defense program.* By Edward P. Moore. Princeton, N. J., Princeton University, Industrial Relations Section, 1941. 32 pp., bibliography.

Shows policies being followed in unspecified individual plants.

*Overtime provisions in union agreements in certain defense industries.* Washington, U. S. Bureau of Labor Statistics, 1941. 12 pp. (Serial No. R. 1288, reprint from April 1941 Monthly Labor Review.)

*Problems in wage adjustment.* New York, National Industrial Conference Board, Inc., 1941. 27 pp. (Studies in personnel policy, No. 33.)

A study of methods of making wage adjustments, including a discussion of the point of view of organized labor by the director of research of the Textile Workers Union of America. The methods described include indirect profit sharing in the form of extra compensation in some ratio to the total volume of production or to the selling price of the product; payments to employees directly and definitely related to profits; and adjustments based on changes in cost of living. The point of view of labor as here expressed is that these methods or techniques, although applicable in some individual concerns, are not generally adequate. It is held that a broad program is needed, involving a larger share by labor in the proceeds of industry, a program based on the concept of a fair standard of living made possible by mass production, low prices, and industry-wide agreements between employers and organized labor.

*Wage policies of industrial unions.* By Solomon Barkin. (In Harvard Business Review, Vol. XIX, No. 3, New York, 1941, pp. 342–351.)

*Salarios, cargas familiares y morbilidad en los empleados particulares* [*Chile*]. By Manuel de Viado. (In Previsión Social, Ministerio de Salubridad, Previsión y Asistencia Social, Departamento de Previsión Social, Santiago de Chile, September-December 1940, pp. 106–130.)

A study of the salaries paid by private firms in each of 3 urban centers in Chile, representing different economic zones of the country; the burden upon the average worker of support of dependents; and the prevalence of sickness among the members of the group of salaried employees covered.

*Vencimentos do professorado secundário.* (In Boletim do Ministério do Trabalho, Indústria e Comércio, Rio de Janeiro, August 1940, pp. 137–150.)

Brief account of certain aspects of Government supervision over public and private secondary schools in various countries, with a table of information on teachers' salaries and hours in the public schools of 47 countries.

## *Wartime Labor Conditions and Policies*

*Extent of week-end shut-downs in selected defense industries.* By Morris Levine. Washington, U. S. Bureau of Labor Statistics, 1941. 7 pp., charts. (Serial No. R. 1270, reprint from March 1941 Monthly Labor Review.)

*Personnel policies governing absence for military service.* New York, Metropolitan Life Insurance Co., Policyholders Service Bureau, [1941?]. 11 pp., chart; mimeographed.

The policies of 35 companies regarding compensation, vacations, group insurance, pensions, and other benefits for employees called up under the Selective Training and Service Act of 1940 are analyzed in this report.

*Office for Emergency Management—functions and administration.* Washington, U. S. Office for Emergency Management, Information Division, 1941. 55 pp.

The various branches of the Office for Emergency Management whose functions are outlined and whose officials are listed in this pamphlet include the labor division of the Office of Production Management; National Defense Mediation

Board; Office of Price Administration and Civilian Supply; and Office for Coordination of Health, Welfare, and Related Activities.

*Ministry of Labor and National Service handbook.* London, Ministry of Labor and National Service, 1941. 20 pp.

Shows how the main functions of the Ministry are divided in wartime. It is in three parts dealing, respectively, with the main divisions of the Ministry, the functions of its headquarters departments, and the provincial organization.

*Labor's part in war and reconstruction.* By Marshall E. Dimock. (In American Political Science Review, Evanston, Ill., April 1941, pp. 217–231.)

The author contrasts the methods used for fitting labor into a war economy in Great Britain and in other countries. The method used in Great Britain is that of voluntary cooperation based on an understanding that the rules which apply in peacetime will not be jeopardized in wartime. The experience of Great Britain in fitting organized labor into the present war economy is described in some detail.

*War control of labor—measures used by England, France, and Germany.* New York, National Association of Manufacturers, 1940. 11 pp.

*Economic aspects of war operation.* By Noel Sargent. New York, National Association of Manufacturers, 1940. 70 pp.; mimeographed.

Written with particular reference to the manner in which England, France, and Germany are raising money to finance the war, controlling prices, and regulating labor.

*Concentration of production—explanatory memorandum.* London, Board of Trade, 1941. 4 pp. (Cmd. 6258.)

Proposals of the British Government for concentrating production of consumers' goods in order to release plant facilities for war work.

*Handbook on the organization of mobile welfare canteens.* Compiled by Mrs. William Paterson. London, Electrical Association for Women, Mobile Welfare Canteen Service, 1940. 33 pp., illus.

The mobile canteen service provides refreshments, books, and stores for troops on isolated searchlight and anti-aircraft gun posts and other army services in Great Britain. The method of operation of the service, equipment, and selection and training of personnel are described in the pamphlet listed.

## *General Reports*

*Annual report of Governor of Hawaii, for fiscal year ended June 30, 1940.* Washington, U. S. Department of the Interior, 1940. 75 pp.

The report reviews the various Federal activities in the Islands, and gives data on housing, education, and agricultural, industrial, and business conditions.

*Annual book on statistics [of Puerto Rico], fiscal year 1939–40.* San Juan, Department of Agriculture and Commerce, Division of Agricultural and Industrial Economy, 1941. 222 pp.

This general statistical yearbook includes data on exports and imports; agricultural production; average retail prices of principal edible commodities; number of homeworkers employed in needlework manufacture, by locality; wages in agriculture and industry; and education.

*Annual report of Commissioner of Labor of Puerto Rico, 1939–40.* San Juan, 1940. 103 pp.

The report covers the work of the factory inspection service, the bureau of women and children in industry, the employment service, and the mediation and conciliation commission, and gives data on wages and prices.

*The Americas—South and North.* (In Survey Graphic, New York, March 1941, pp. 103–216; maps, charts, illus.)

Part 4 of this symposium, on the stake of the people in the Americas, includes an article on the labor situation in Latin America, by Ernesto Galarza, chief of Division of Social and Labor Information, Pan American Union, and one on social insurance in South America, by John G. Winant, U. S. Ambassador to Great Britain, formerly director of the International Labor Office in Geneva.

*Latin American backgrounds—a bibliography of 497 references.* Washington, National Education Association of the United States, Research Division, October 1940. 74 pp.; mimeographed.

This bibliography, prepared partly to meet the demand of classroom teachers for material on Latin America, has references on the following topics of definite labor or social-welfare interest: Public relief, machines and unemployment, housing, security, immigration, and health.

*Resumen de las condiciones sociales y económicas de la clase obrera argentina.* By José Figuerola. (In Boletín Informativo del Departamento Nacional del Trabajo, Buenos Aires, 1939, Nos. 220–222, pp. 5308–5324.)

Summary of the social and economic conditions of the working class in Argentina, including statistics of cost of living, retail prices of foods, wages of industrial workers, weekly hours of work, employment and unemployment, and housing, at varying periods down to and including 1939.

*Extracto estadístico del Perú, 1939.* Lima, Ministerio de Hacienda y Comercio, Dirección Nacional de Estadística, [1940?]. Various paging, charts.

Gives through 1939, for the city of Lima, wholesale and retail prices and index numbers and statistics of industrial accidents; and for the country as a whole, through 1939, data on employment and total remuneration in the mining industry, number of workers employed and average daily wages for 1938 in the cotton industry and for 1939 in the rice and wheat industries; and number of workers, average working hours, and average daily wages through 1939 in the sugar industry, for both field and mill work.

*Derecho del trabajo.* By Rafael Caldera Rodriguez. Caracas, Venezuela, Tipografía La Nación, 1939. 867 pp., bibliography.

A treatise on the rights of labor, containing information on labor legislation in Venezuela, development of labor legislation in general, and organization and work of the International Labor Office. Subjects discussed in connection with legislation in Venezuela and other countries include labor inspection, employment offices, labor courts, labor agreements, wages, working hours, weekly rest, paid vacations, work of women and minors, safety measures, workmen's compensation, labor organizations, industrial disputes, social insurance, working and living conditions, cooperatives, and special protection for domestic servants, home workers, and agricultural workers.

*Lönestatistisk årsbok för Sverige, 1939.* Stockholm, Socialstyrelsen, 1941. 126 pp., charts.

The yearbook contains statistics of wages in agriculture, manufacturing, trades, etc., in Sweden in 1939.

U. S. GOVERNMENT PRINTING OFFICE: 1941